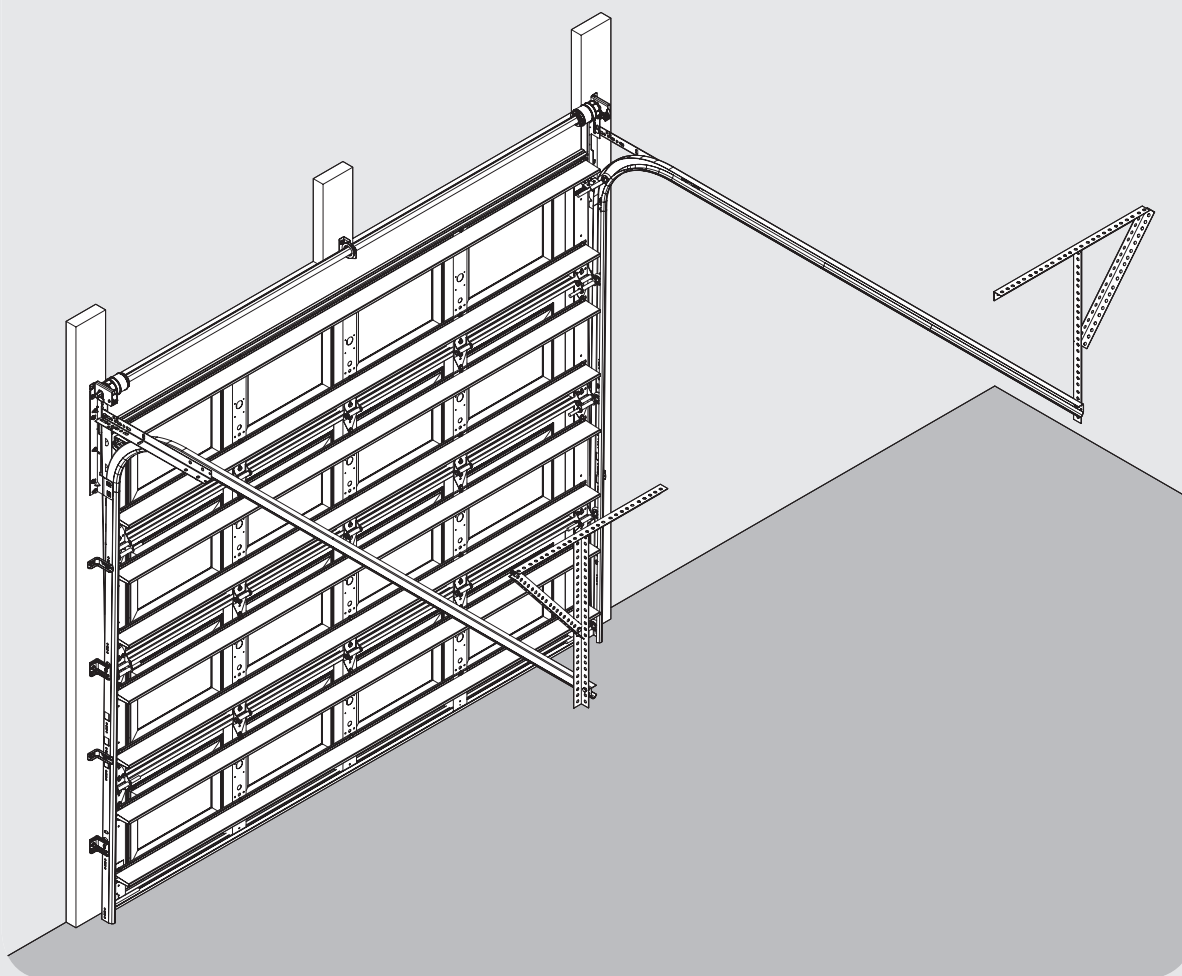




# 8000, 8100, 8200 WINDLOAD

**TorqueMaster® Plus - Single and Double Spring**  
Installation Instructions and Owner's Manual



Wayne-Dalton, a Division of  
Overhead Door Corporation  
P.O. Box 67, Mt. Hope, OH 44660  
[www.Wayne-Dalton.com](http://www.Wayne-Dalton.com)

## **IMPORTANT NOTICE!**

**Read these instructions carefully before attempting installation. If in question about any of the procedures, do not perform the work. Instead, have a trained door systems technician do the installation or repairs.**

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## Definition of key words used in this manual:

### **WARNING**

INDICATES A POTENTIALLY HAZARDOUS SITUATION WHICH, IF NOT AVOIDED, COULD RESULT IN SEVERE OR FATAL INJURY.

**CAUTION:** PROPERTY DAMAGE OR INJURY CAN RESULT FROM FAILURE TO FOLLOW INSTRUCTIONS.

**IMPORTANT:** REQUIRED STEP FOR SAFE AND PROPER DOOR OPERATION.

**NOTE:** Information assuring proper installation of the door.

### **WARNING**

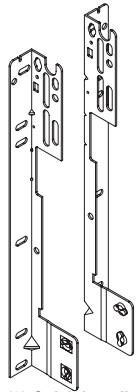
**READ THESE INSTRUCTIONS CAREFULLY BEFORE ATTEMPTING INSTALLATION. IF IN QUESTION ABOUT ANY OF THE PROCEDURES, DO NOT PERFORM THE WORK. INSTEAD, HAVE A TRAINED DOOR SYSTEMS TECHNICIAN DO THE INSTALLATION OR REPAIRS.**

1. **READ AND FOLLOW ALL INSTALLATION INSTRUCTIONS.**
2. Wear protective gloves during installation to avoid possible cuts from sharp metal edges.
3. It is always recommended to wear eye protection when using tools, otherwise eye injury could result.
4. Avoid installing your new door on windy days. Door could fall during the installation causing severe or fatal injury.
5. Doors 12'- 0" wide and wider should be installed by two persons, to avoid possible injury.
6. Operate door **ONLY** when it is properly adjusted and free from obstructions.
7. If a door becomes hard to operate, inoperative or is damaged, immediately have necessary adjustments and/or repairs made by a trained door system technician using proper tools and instructions.
8. **DO NOT** stand or walk under a moving door, or permit anybody to stand or walk under an electrically operated door.
9. **DO NOT** place fingers or hands into open section joints when closing a door. Use lift handles/gripping points when operating door manually.
10. **DO NOT** permit children to operate garage door or door controls. Severe or fatal injury could result, should the child become entrapped between the door and the floor.
11. Due to constant extreme spring tension, **DO NOT** attempt any adjustment, repair or alteration to any part of the door, especially to springs, spring brackets, bottom corner brackets, red colored fasteners, cables or supports. To avoid possible severe or fatal injury, have any such work performed by a trained door systems technician using proper tools and instructions.
12. On electrically operated doors, pull down ropes must be removed and locks must be removed or made inoperative in the open (unlocked) position.
13. Top section of door may need to be reinforced when attaching an electric opener. Check door and/or opener manufacturer's instructions.
14. **VISUALLY** inspect door and hardware monthly for worn and or broken parts. Check to ensure door operates freely.
15. Test electric opener's safety features monthly, following opener manufacturer's instructions.
16. **NEVER** hang tools, bicycles, hoses, clothing or anything else from horizontal tracks. Track systems are not intended or designed to support extra weight.

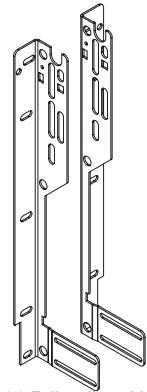
**After installation is complete, fasten this manual near garage door.**

## Package Contents

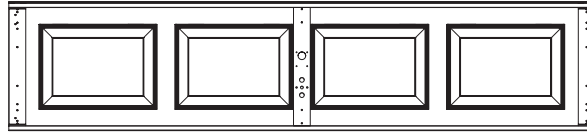
**NOTE:** DEPENDING ON THE DOOR MODEL, SOME PARTS LISTED WILL NOT BE SUPPLIED IF NOT NECESSARY. REAR SUPPORTS MAY OR MAY NOT BE INCLUDED WITH YOUR DOOR.



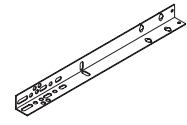
(2) Quick install RH/LH flagangles



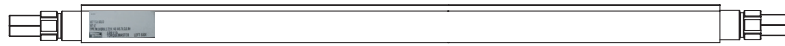
(2) Fully adjustable RH/LH flagangles



Door sections (as required)



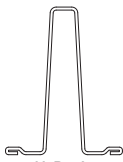
Horizontal angles RH/LH (as required)



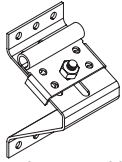
(1) TorqueMaster® spring tube



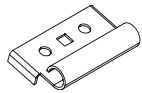
(2) Horizontal tracks RH/LH



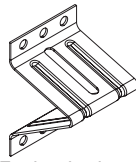
U-Bar's (as required)



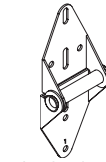
Top bracket assemblies (as required)



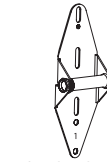
Top bracket slides (as required)



Top bracket bases (as required)



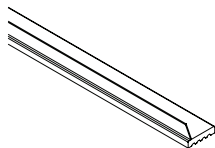
#1, #2, #3, #4, & #5 Wide hinges (as required)



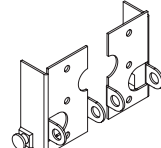
#1, #2, #3, #4, & #5 Narrow hinges (as required)



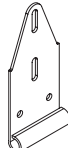
(2) Roller Spacers



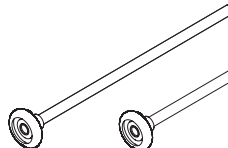
Weather seal & nails (if included)



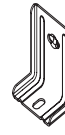
Left and right bottom brackets



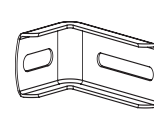
Extension brackets (as required)



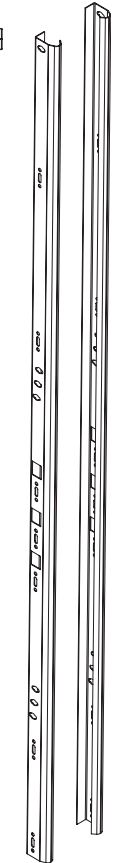
Rollers (As required)



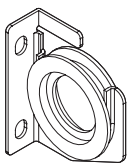
Q.I. jamb brackets (as required)



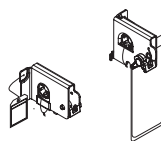
Slotted jamb brackets (as required)



(2) Vertical RH/LH tracks



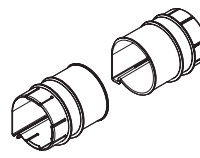
(1) Center bracket assembly



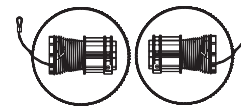
Left and right end brackets



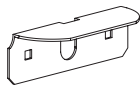
(1) Loose winding shaft (single spring only)



Right & left drum wraps



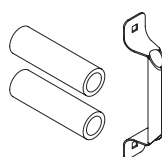
Right and left hand cable drum assemblies



(2) Step plates



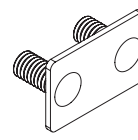
#6 Screw eye and pull rope (if included)



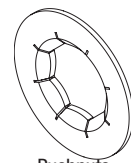
(2) Lift handles & spacers



Manual

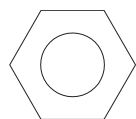


Stud plates (as required)



Pushnuts (as required)

## Package contents continued...



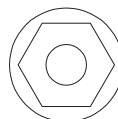
3/8" - 16 Hex nuts  
(as required)



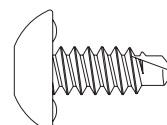
1/4" - 20 Hex nuts  
(as required)



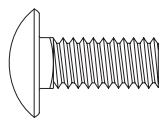
5/16" - 18 Hex nuts  
(as required)



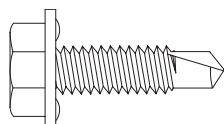
1/4" - 20 Flange hex nuts  
(as required)



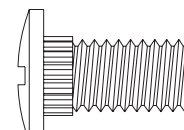
(2) 1/4" - 14 X 5/8"  
Tamper resistant screws



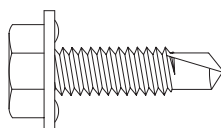
(2) 5/16" - 18 x 3/4"  
Carriage Bolts



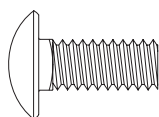
1/4" - 14 x 7/8" Self drilling screws  
(as required)



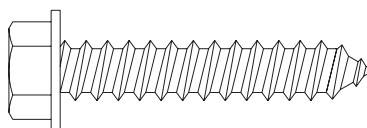
3/8" - 16 x 3/4" Truss head  
bolts (as required)



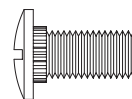
1/4" - 20 x 11/16" Self  
drilling screws (as required)



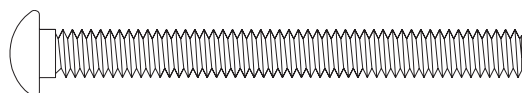
(4) 1/4" - 20 x 5/8"  
Carriage bolts



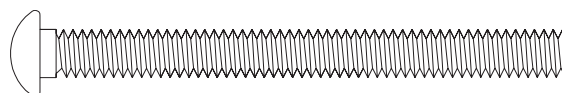
5/16" X 1 5/8" Hex head lag  
screws (as required)



1/4" - 20 X 9/16" Track  
Bolts (as required)



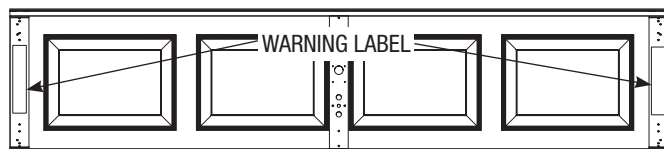
(2) 1/4" x 2-1/2" Carriage bolts



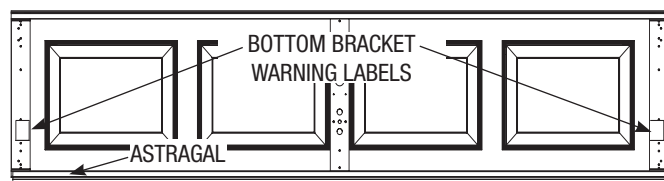
(2) 1/4" x 2-3/4" Carriage bolts

## Door Section Identification

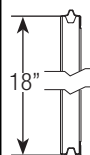
Door Height	Bottom	Lock (second)	Intermediate (third)	Intermediate II (fourth)	Top
6'0"	18"	18"	18"	NA	18"
6'6"	21"	18"	18"	NA	21"
7'0"	21"	21"	21"	NA	21"
7'6"	18"	18"	18"	18"	18"
8'0"	21"	18"	18"	18"	21"



INTERMEDIATE I SECTION



BOTTOM SECTION



When installing your door you must use sections of the appropriate height in the right stacking location. What sections heights you need to use in what order depends on the height of your door.

Unless your door is five sections in height, you will not receive an Intermediate II section.

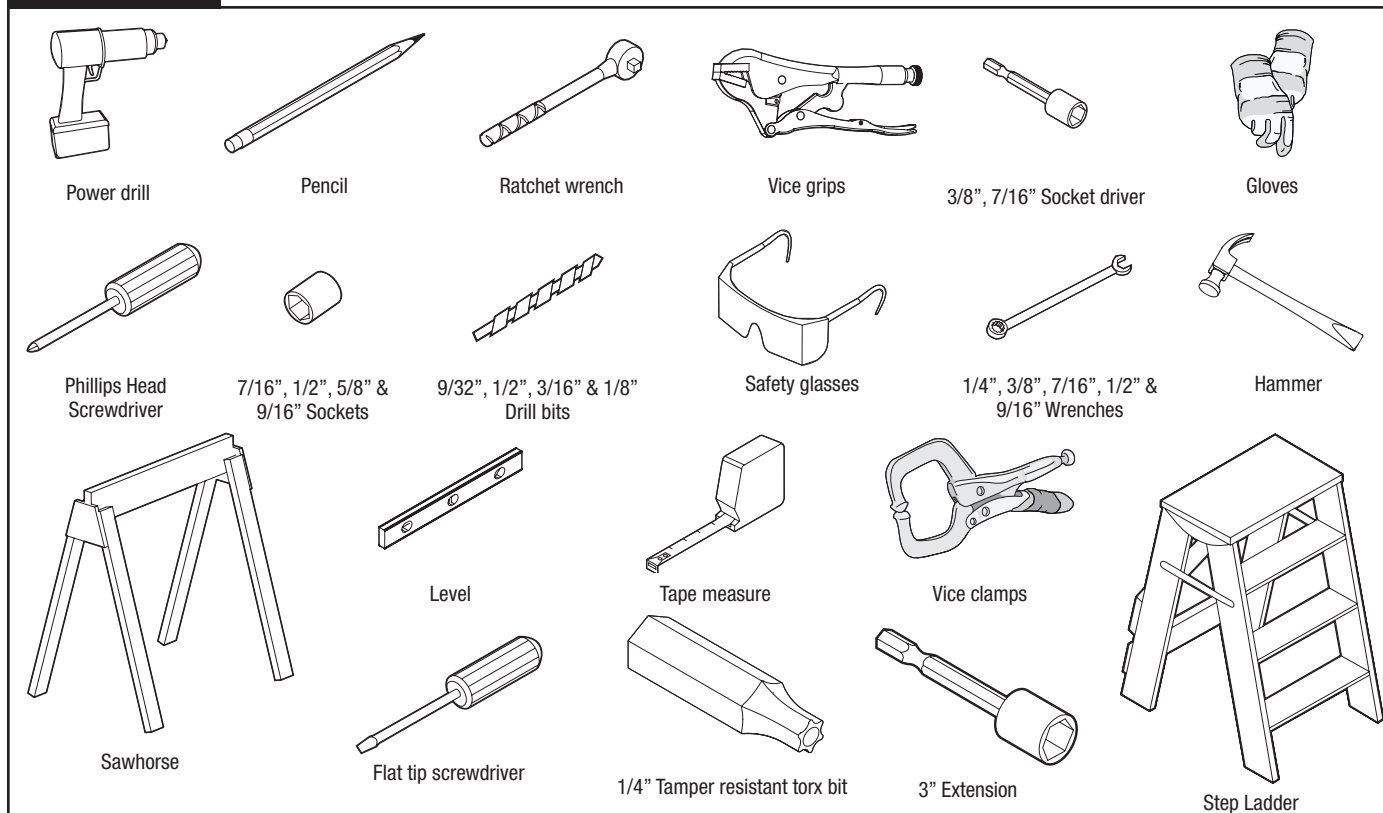
The **BOTTOM SECTION** can be identified by the factory attached bottom astragal, or by the bottom bracket warning labels on each end stile.



The **INTERMEDIATE I SECTION** may have a warning label attached to either right or left hand endstile of the section. This section is always the 3rd section from the bottom of the door.



## Tools Required



## Removing An Old Door

**IMPORTANT:** COUNTERBALANCE SPRING TENSION MUST ALWAYS BE RELEASED BEFORE ANY ATTEMPT IS MADE TO START REMOVING AN EXISTING DOOR.

### WARNING

A POWERFUL SPRING RELEASING ITS ENERGY SUDDENLY CAN CAUSE SEVERE OR FATAL INJURY. TO AVOID INJURY HAVE A TRAINED DOOR SYSTEMS TECHNICIAN, USING PROPER TOOLS AND INSTRUCTIONS, RELEASE THE SPRING TENSION.

For detailed information see supplemental instructions "Removing an Existing Door /Preparing the Opening". These instructions are available at no charge from Wayne-Dalton, a Division of Overhead Door Corporation, P.O. Box 67, Mt. Hope, OH 44660, or at [www.Wayne-Dalton.com](http://www.Wayne-Dalton.com).

## Preparing the Opening

Tools Needed:

Recommended tools from page 4

If you just removed your existing door or you are installing a new door, complete all steps in PREPARING THE OPENING.

To ensure secure mounting of track brackets, side and center brackets, or steel angles to new or retro-fit construction, it is recommended to follow the procedures outlined in DASMA Technical Data Sheets #156, #161 and #164 at [www.dasma.com](http://www.dasma.com).

The inside perimeter of your garage door opening should be framed with wood jamb and header material. The jambs and header must be securely fastened to sound framing members. The mounting surface must be 2" x 6" lumber minimum (Select southern yellow pine lumber. Do not use lumber marked as spruce-pine-fur or SPF). The jambs must be plumb and the header level. The jambs should extend a minimum of 12" (305 mm) above the top of the opening for TorqueMaster counterbalance systems. For low headroom applications, the jambs should extend to the ceiling height. Minimum side clearance required, from the opening to the wall, is 3-1/2" (89 mm).

**IMPORTANT:** CLOSELY INSPECT JAMBS, HEADER AND MOUNTING SURFACE. ANY WOOD FOUND NOT TO BE SOUND, MUST BE REPLACED. For TorqueMaster counterbalance systems, a suitable mounting surface (2" x 4") must be firmly attached to the wall, above the header at the center of the opening.

**NOTE:** Drill a 3/16" pilot hole in the mounting surface to avoid splitting the lumber. Do not attach the mounting surface with nails.

### Weather Seal (May Not Be Included):

Cut or trim the weather seal (if necessary) to the header and jambs.

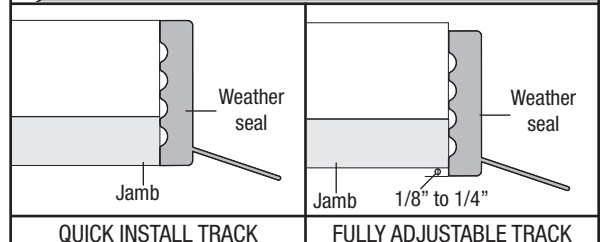
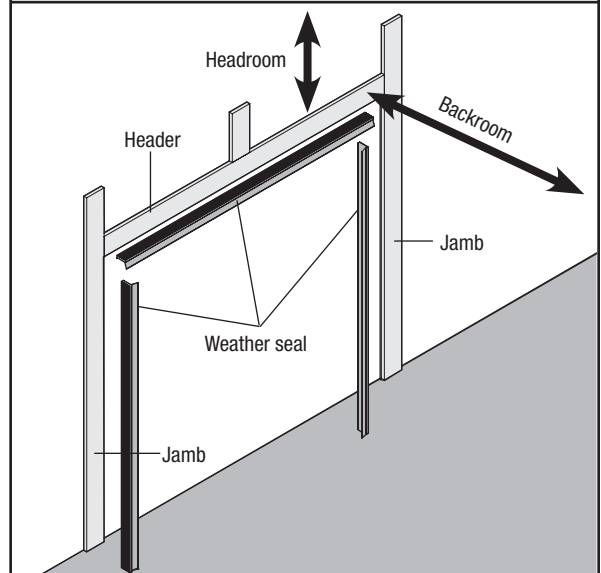
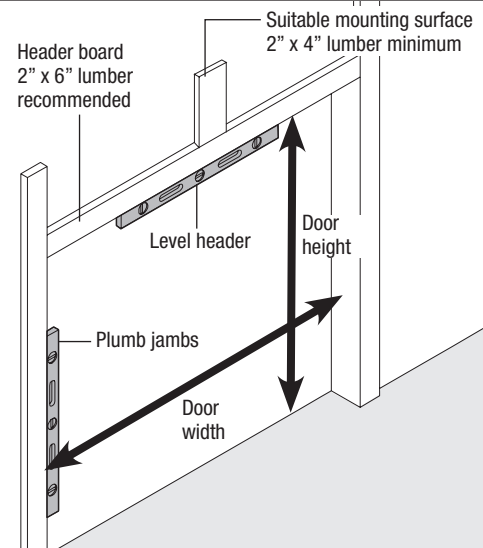
**For quick install track:** Align the header seal with the inside edge of the header and temporarily secure it to the header with equally spaced nails. Next, fit the jamb seals up tight against the header seal and flush with the inside edge of the jamb. Temporarily secure the jamb seals with equally spaced nails approximately 12" to 18" apart. This will keep the bottom section from falling out of the opening during installation.

**For fully adjustable track:** Align the header seal 1/8" to 1/4" inside the header and temporarily secure it to the header with equally spaced nails. Next, fit the jamb seals up tight against the header seal and 1/8" to 1/4" inside the jamb. Temporarily secure the jamb seals with equally spaced nails approximately 12" to 18" apart. This will keep the bottom section from falling out of the opening during installation.

**NOTE:** Do not permanently attach weather seal to the jamb at this time.

**HEADROOM REQUIREMENT:** Headroom is defined as the space needed above the top of the door for tracks, springs, etc. to allow the door to open properly. If the door is to be motor operated, 2-1/2" (64 mm) of additional headroom is required.

**BACKROOM REQUIREMENT:** Backroom is defined as the distance needed from the opening back into the garage to allow the door to open fully.



### HEADROOM REQUIREMENT

TRACK TYPE	TorqueMaster® Springs
15" Radius Track	12-1/2"
12" Radius Track	11"

### BACKROOM REQUIREMENT

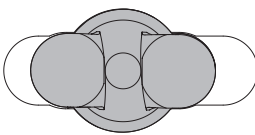
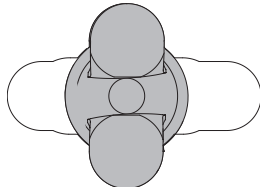
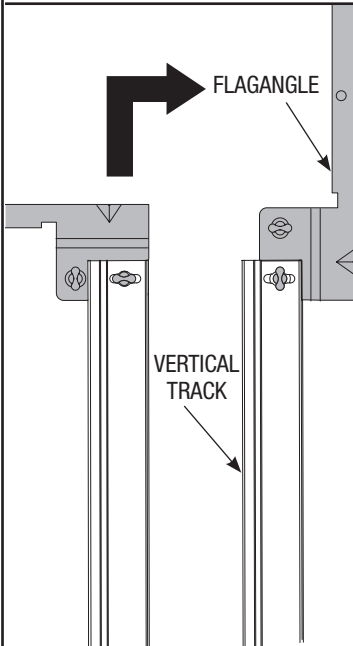
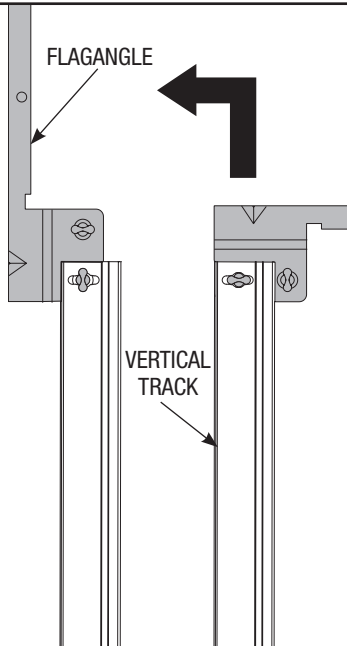
DOOR HEIGHT	TRACK	MANUAL LIFT	MOTOR OPERATED
6'6", 7'0"	12", 15" Radius	98"	125"
7'6", 8'0"	12", 15" Radius	110"	137"

# Installation

Begin the installation of the door by checking the opening. It must be the same size as the door. Vertical jambs must be plumb and level with header. Side clearance, from edge of door to wall, must be a minimum of 3-1/2" (89mm) on each side.

**IMPORTANT:** STAINLESS STEEL OR PT 2000 COATED LAG SCREWS MUST BE USED WHEN INSTALLING CENTER BEARING BRACKETS, END BRACKETS, JAMB BRACKETS, OPERATOR MOUNTING/SUPPORT BRACKETS AND DISCONNECT BRACKETS ON TREATED LUMBER (PRESERVATIVE-TREATED). STAINLESS STEEL OR PT 2000 COATED LAG SCREWS ARE NOT NECESSARY WHEN INSTALLING PRODUCTS ON UN-TREATED LUMBER.

**NOTE:** It is recommended that 5/16" lag screws be pilot drilled using a 3/16" drill bit prior to fastening.

1	Attaching Quick Install Flag Angle to Vertical Track	QUICK INSTALL TAB UNLOCKED	QUICK INSTALL TAB LOCKED
Tools Needed: None	<b>NOTE:</b> If you have fully adjustable flagangles, skip this step and complete Step 2.		
	Place the lower quick install tab of the flagangle in the quick install feature of the vertical track. Give the flagangle 1/4 turn to lock in place. Repeat for other side.		
	<b>NOTE:</b> After completing this step, continue with Step 3.	LEFT HAND TRACK AND FLAGANGLE	RIGHT HAND TRACK AND FLAGANGLE

**NOTE:** If you have fully adjustable flagangles, skip this step and complete Step 2.

Place the lower quick install tab of the flagangle in the quick install feature of the vertical track. Give the flagangle 1/4 turn to lock in place. Repeat for other side.

**NOTE:** After completing this step, continue with Step 3.

# 2

## Attaching Fully Adjustable Flagangle to Vertical Track

Tools Needed:  
None

**NOTE:** If you have quick install flagangles, skip this step and complete Step 3.

### Attaching fully adjustable flagangle to universal vertical track:

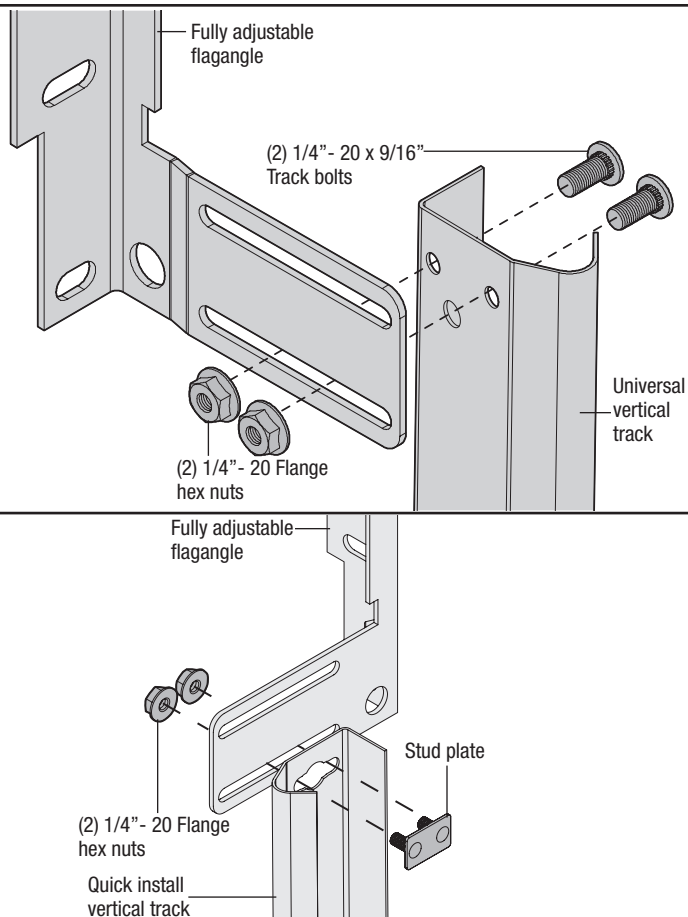
Hand tighten the flagangle to the vertical track using (2) 1/4" - 20 x 9/16" track bolts (or stud plate if included) and (2) 1/4" - 20 flange hex nuts. Repeat for other side.

Secure the flange nuts after flagangle spacing is complete (Step 15).

### Attaching fully adjustable flagangle to quick install vertical track:

Hand tighten the flagangle to the vertical track using (1) stud plate and (2) 1/4" - 20 flange hex nuts. Repeat for other side.

Secure the flange nuts after flagangle spacing is complete (Step 15).



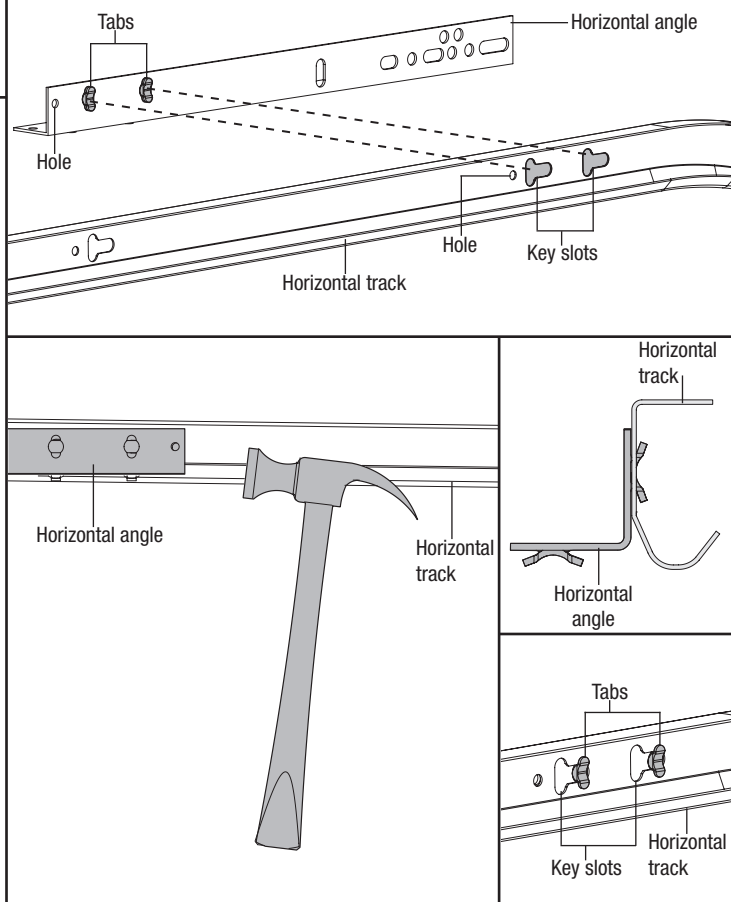
# 3

## Horizontal Angle

Tools Needed:  
Hammer

Position the horizontal angle as shown. Place tabs of horizontal angle in the key slot of horizontal track. Using a hammer, tap the horizontal angle towards the curved end of the track until the hole in track and angle are aligned. Set tracks aside.

**NOTE:** For larger doors, a full length horizontal angle may be spot welded to the horizontal track. If the horizontal angle is not welded, the horizontal angle will be installed as shown.



# 4

## Installing The Jamb Brackets

Tools Needed:  
None

**NOTE:** The following (QI) denotes a quick install jamb bracket. No additional hardware is needed.

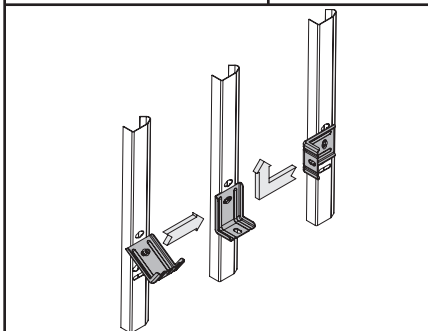
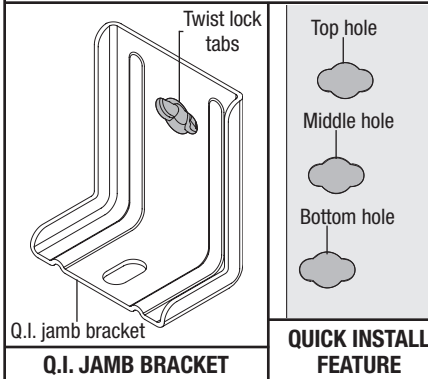
**NOTE:** The following (JB-US) denotes a slotted jamb bracket.

Measure the length or the vertical track. Using the jamb bracket schedule, determine the placement of the jamb brackets for your door height and track type.

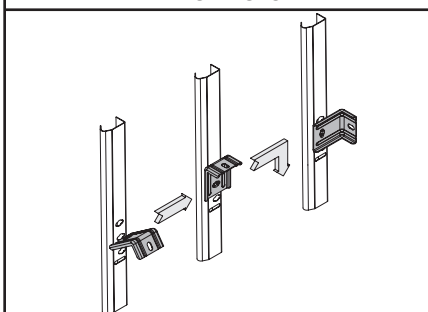
### To install the (QI) jamb brackets:

Align the twistlock tab on (QI) jamb bracket with the quick install feature in the track and turn the jamb bracket perpendicular to the track so the mounting flange is toward the back leg of the track.

**To install the (JB-1) jamb brackets:** Loosely fasten the (JB-1) jamb bracket to the track with a 1/4"-20 x 9/16" track bolt and nut.



LEFT SIDE SHOWN



RIGHT SIDE SHOWN

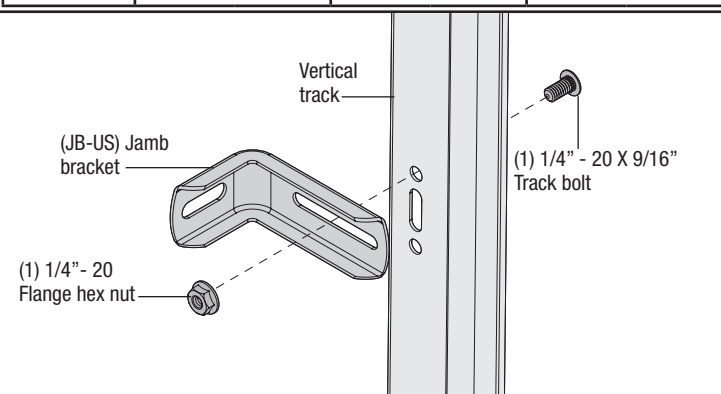
(Q.I.) JAMB BRACKET INSTALLATION

## (JB-US) JAMB BRACKET SCHEDULE

DOOR HEIGHT	NO. OF SECTIONS	NO. OF JAMB BRACKETS (EACH JAMB)	LOCATION OF CENTER LINE OF JAMB BRACKETS MEASURED FROM BOTTOM OF TRACK (ALL DIMENSIONS ± 2")
<b>WINDLOAD SPECIFICATION 1101, 1102, 1120, 1121, 1122, 1140, 1141, 1143</b>			
6'-0"	4	1	33 1/2" (JB-US)
6'-6"	4	2	34" (JB-US), 56" (JB-US)
7'-0"	4	2	29 1/2" (JB-US), 63 1/4" (JB-US)
7'-6"	5	1	28 1/2" (JB-US)
8'-0"	5	2	34" (JB-US), 58" (JB-US)
<b>WINDLOAD SPECIFICATION 1123</b>			
6'-0"	4	2	2" (JB-US), 23" (JB-US), 33 1/2" (JB-US)
6'-6"	4	3	2" (JB-US), 23 1/2" (JB-US), 34" (JB-US), 56" (JB-US)
7'-0"	4	4	2" (JB-US), 25 1/2" (JB-US), 34" (JB-US), 63 1/4" (JB-US)
7'-6"	5	4	2" (JB-US), 24 1/2" (JB-US), 32 1/2" (JB-US), 49" (JB-US)
8'-0"	5	5	2" (JB-US), 23" (JB-US), 34" (JB-US), 58" (JB-US), 75 1/2" (JB-US)
<b>WINDLOAD SPECIFICATION 1103, 1104, 1124, 1125, 1142, 1144</b>			
6'-6"	4	7	2" (JB-US), 10" (JB-US), 21 3/4" (JB-US), 29 3/4" (JB-US), 39" (JB-US), 48" (JB-US), 57 1/4" (JB-US)
7'-0"	4	7	2" (JB-US), 10" (JB-US), 21 3/4" (JB-US), 29 3/4" (JB-US), 42" (JB-US), 52 1/2" (JB-US), 63 1/4" (JB-US)
7'-6"	5	8	2" (JB-US), 10" (JB-US), 18 3/4" (JB-US), 26 3/4" (JB-US), 36" (JB-US), 45" (JB-US), 54 1/4" (JB-US), 74 1/2" (JB-US)
8'-0"	5	8	2" (JB-US), 10" (JB-US), 21 3/4" (JB-US), 29 3/4" (JB-US), 39" (JB-US), 48" (JB-US), 57 1/2" (JB-US), 75 1/2" (JB-US)

## Q.I. JAMB BRACKET SCHEDULE

<b>WINDLOAD SPECIFICATION 1100, 1101, 1102, 1120, 1121, 1122, 1123, 1140, 1141, 1143</b>						
DOOR HEIGHT	1ST SET		2ND SET		3RD SET	
	JAMB BKT	POSITION	JAMB BKT	POSITION	JAMB BKT	POSITION
6'0" (4 SECTIONS)	QIJB - 9	Middle	QIJB - 11	Middle	Not applicable	
6'6" (4 SECTIONS)	QIJB - 9	Middle	QIJB - 10	Bottom	Not applicable	
7'0" (4 SECTIONS)	QIJB - 9	Middle	QIJB - 10	Bottom	Not applicable	
7'6" (5 SECTIONS)	QIJB - 9	Top	QIJB - 10	Middle	QIJB - 11	Middle
8'0" (5 SECTIONS)	QIJB - 9	Top	QIJB - 10	Middle	QIJB - 11	Middle



(JB-US) JAMB BRACKET INSTALLATION

# 5

## Bottom Bracket

Tools Needed:  
Power Drill  
7/16" Socket Driver

**NOTE:** For door section identification see page 4.

Align the center hole of bottom bracket with hole #3 in the end stile of the bottom section.

Refer to the u-bar schedule to determine if the bottom section requires a u-bar. If the bottom section requires a u-bar, position the u-bar over the bottom brackets and center the u-bar side to side on the bottom section.

**Attaching bottom brackets without a u-bar:** Attach the bottom bracket to the end stile using (2) 1/4"-20 x 7/8" self drilling screws and (1) 1/4"-20 x 5/8" tamper-resistant self drilling screw as shown. Repeat for other side.

**Attaching bottom brackets with a u-bar:** Attach the bottom bracket with (1) 1/4"-20 x 7/8" self tamper-resistant drilling screw, and then secure the u-bar / bottom bracket into the endstile using (2) 1/4"-20 x 5/8" self drilling screw. Repeat for other side. Now, finish securing the u-bar to the section using (2) 1/4"-20 x 7/8" self drilling screws at each end and center stile location.

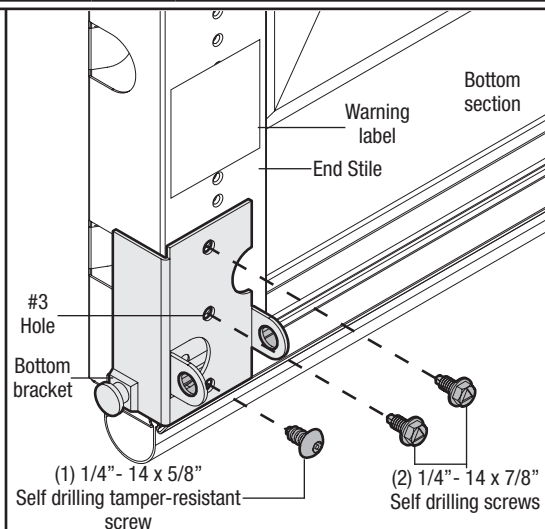
**NOTE:** All doors are provided with the tamper resistant fastener for the bottom brackets. However, the professional installer is most likely to have the proper tool to install this fastener. If the homeowner does not have the proper tool to install the tamper resistant fastener, use a regular 1/4 - 14 x 7/8" self drilling screw in its place.

### For windload specification option codes

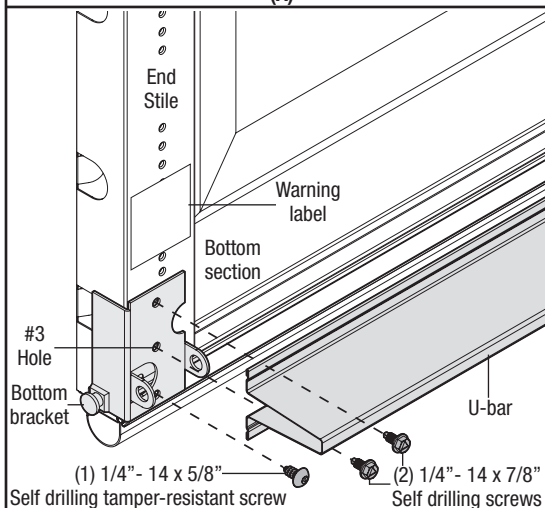
**1124, 1125, 1142 and 1144:** Extension brackets and long shaft rollers are required. Position the extension bracket flush against the end stile and slide it underneath the u-bar (if applicable). Align the extension bracket with the bottom bracket by inserting a long shaft roller with spacer through the bottom bracket and extension bracket hinge tubes. Attach the extension bracket to the endstile with (2) 1/4" -20 x 7/8" self drilling screws as shown. Repeat for other side.

### U-Bar Schedule

Door Height	Section	Position on section	1104 / 1123 / 1124 / 1125 / 1142 / 1143 / 1144
6'- 0" to 8'- 0"	Bottom	Bottom	X

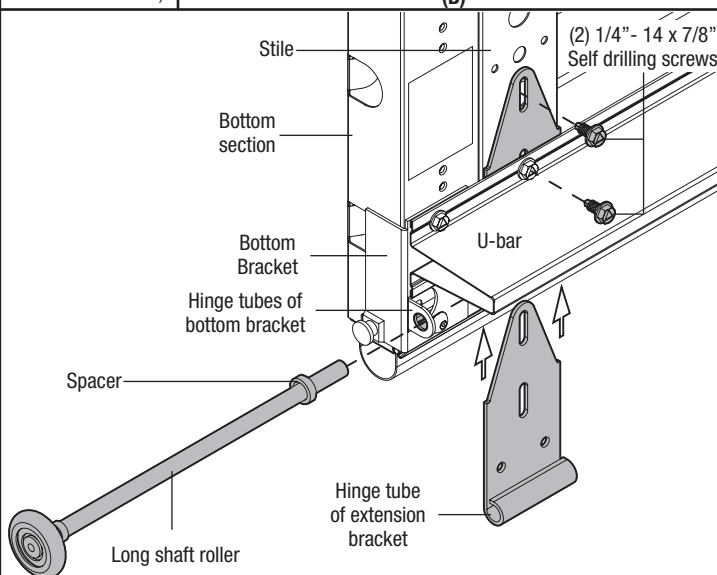


(A)



(B)

END STILE HOLE PATTERN (LEFT SIDE IS SHOWN. RIGHT SIDE IS OPPOSITE.)



(C)



# 6

## Counterbalance Cables

Tools Needed:  
None

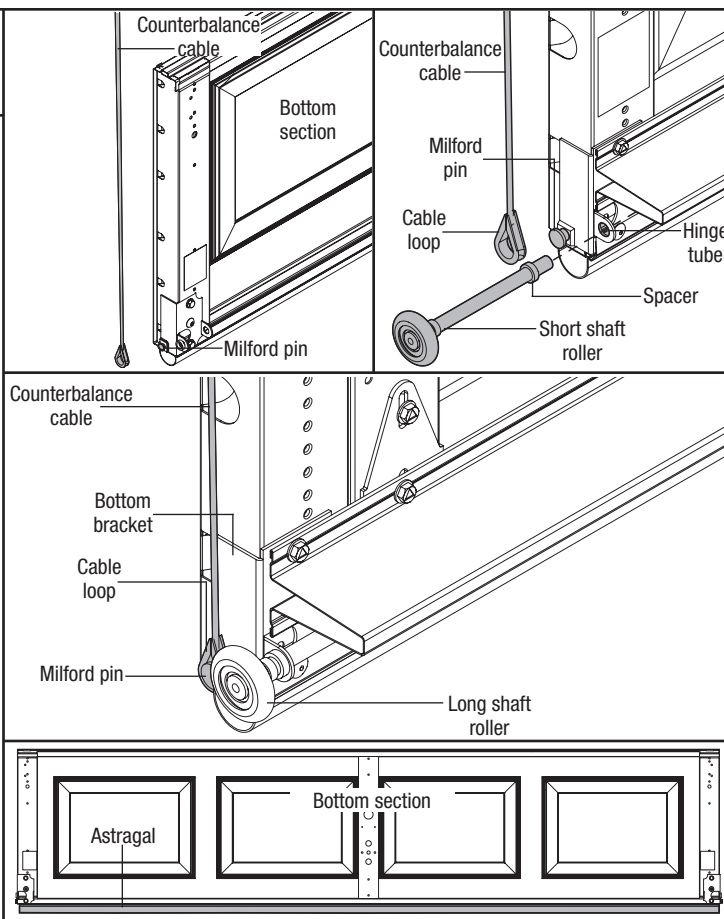
**NOTE:** For door section identification see page 4.

**IMPORTANT:** RIGHT AND LEFT HAND IS ALWAYS DETERMINED FROM INSIDE THE GARAGE LOOKING OUT.

Uncoil the counterbalance cables and make sure you place the right hand cable loop on the right hand milford pin and place the left hand cable loop on the left hand milford pin. Insert a short shaft roller with a spacer into bottom bracket of the bottom section. Repeat for other side.

**NOTE:** Windload option codes 1124,1125,1142 or 1144 will use long shaft rollers with spacer.

**NOTE:** Verify astragal (bottom seal) is aligned with door section. If there is more than 1/2" excess astragal on either side, trim astragal even with door section.



# 7

## Hinges

Tools Needed:  
Power Drill  
7/16" Socket Driver

**NOTE:** Refer to the door section identification on page 4 to determine your lock (second), intermediate (third), intermediate II (fourth section on a five section door), and top sections. Measure your sections to make sure they are the correct height as indicated on the chart.

Refer to the hinge schedule to determine the appropriate hinges for your door.

**FOR WINDLOAD OPTION CODES (A): 1100 OR 1120:** Two narrow end hinges, narrow center hinge(s) and a short shaft roller are required, per side.

**FOR WINDLOAD OPTION CODES (B): 1101, 1102, 1103, 1104, 1121, 1122, 1123, 1140, 1141, or 1143:** Two wide end hinges, narrow center hinge(s) and a short shaft roller are required, per side.

**FOR WINDLOAD OPTION CODES (C): 1124, 1125, 1142, 1104, or 1144:** Two wide end hinges, wide center hinge(s) and a long shaft roller are required, per side.

Locate the bottom section, using #1 hinges for the end stiles and depending on the width of your door, enough #1 hinge(s) for each of the center stile(s) location.

Hinge Schedule				
Option Code	End Hinges		Wide Center Hinges	
	Quantity # Of hinges per section	Wide End Hinges		
1100, 1120	0	None	None	
1101, 1102, 1103, 1104, 1121, 1122, 1123, 1140, 1141, 1143	2	Yes	None	
1124, 1125, 1142, 1144	4	Yes	As required	

#1 Wide hinge	#2 Wide hinge	#3 Wide hinge	#4 Wide hinge	#5 Wide hinge

#1 Narrow hinge	#2 Narrow hinge	#3 Narrow hinge	#4 Narrow hinge	#5 Narrow hinge

## Hinges Continued...

Place the hinges on the section so that the lower (#) leaf of the hinge is over the pre-punched holes in the #1 and #4 of the end stiles and the pre-punched holes of the center stile(s) at the top of the section. Secure the hinges to the section using (2) 1/4" - 14 x 7/8" self tapping screws for each, then insert the roller into the appropriate end hinge tube.

**NOTE:** The #1 hinges serve as end hinges and center hinges on the bottom section. The #1 hinges also serve as center hinges at all center hinge locations.

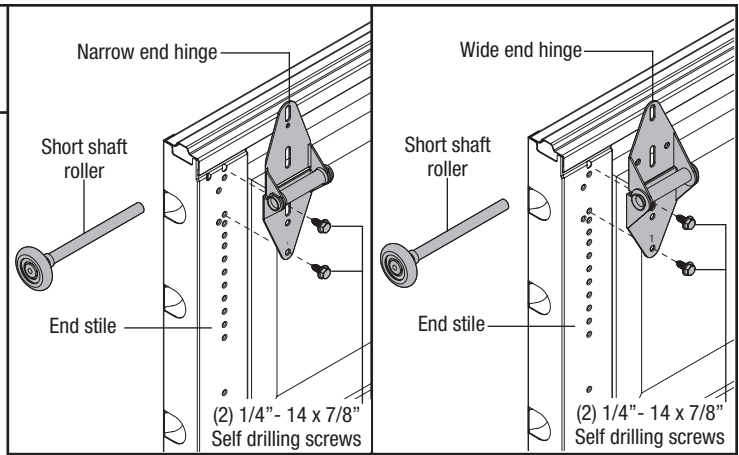
Use #2 end hinges and #1 center stile hinges for the lock section (second section) of the door.

Use #3 end hinges and #1 center stile hinges for the intermediate section (third section) of the door.

Use #4 end hinges and #1 center stile hinges for the intermediate section II (fourth section) of the door.

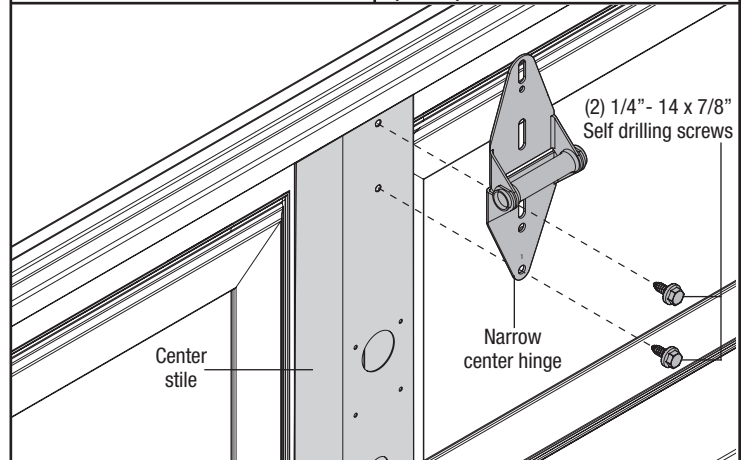
**IMPORTANT:** WHEN PLACING ROLLERS INTO END HINGES NUMBER 2 AND HIGHER, THE ROLLER GOES INTO TUBE FURTHEST AWAY FROM SECTION.

**NOTE:** #4 End hinges are used on fourth section of five section doors.

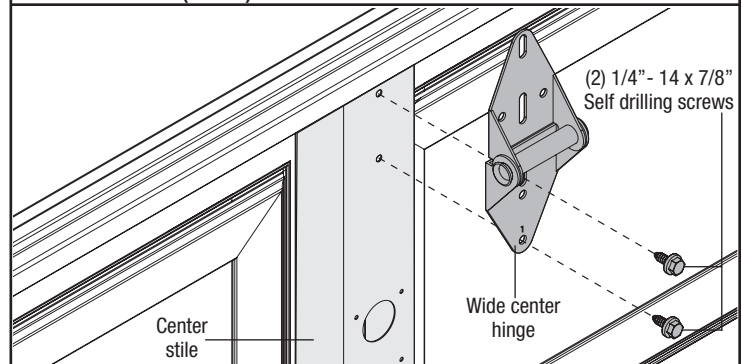


(A) NARROW END HINGE INSTALLATION

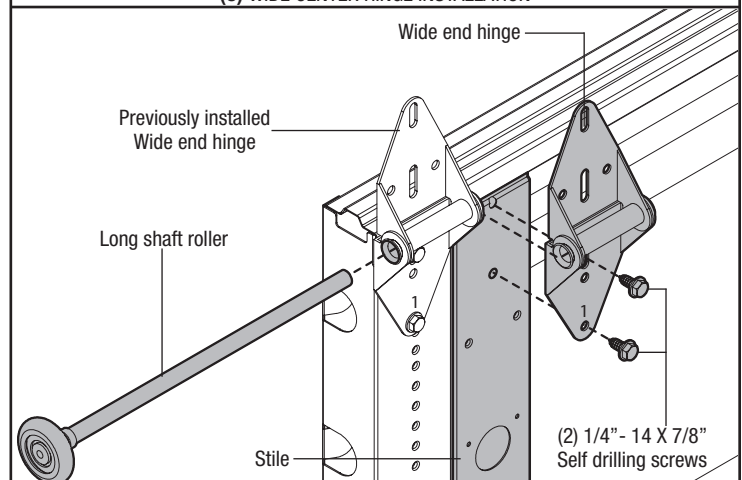
(B OR C) WIDE END HINGE INSTALLATION



(A OR B) NARROW CENTER HINGE INSTALLATION



(C) WIDE CENTER HINGE INSTALLATION



(C)

# 8

## Top Bracket

Tools Needed:  
Power Drill  
7/16" Socket Driver

**NOTE:** Refer to illustrations (A) or (B) to determine which top bracket was supplied with your door. Follow the corresponding step below:

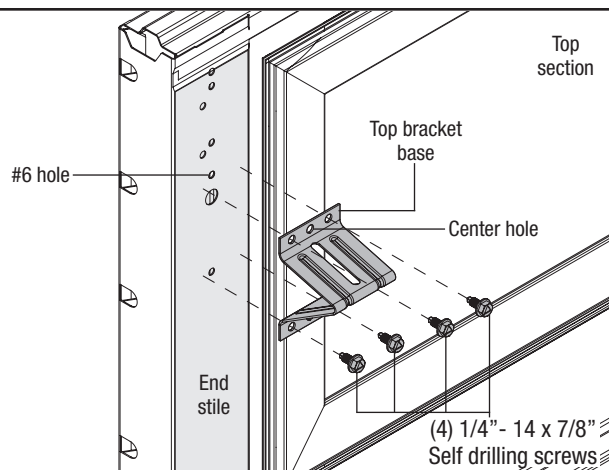
**For Top Bracket (A):** Align upper-center hole of the top bracket base with #6 hole in the end stile (See End Stile Hole Pattern on Pg 10). Ensure the top bracket base is level and aligned with the edge of the section. Secure the top bracket base to the endstile using (4) 1/4" - 20 x 7/8" self drilling screws.

Loosely fasten the top bracket slide with 1/4"-20 x 5/8" carriage bolt and 1/4"-20 flange hex nut. Insert a short shaft roller into the top bracket slide. The top bracket slide will be adjusted and tightened in Step 18. Repeat for the opposite side.

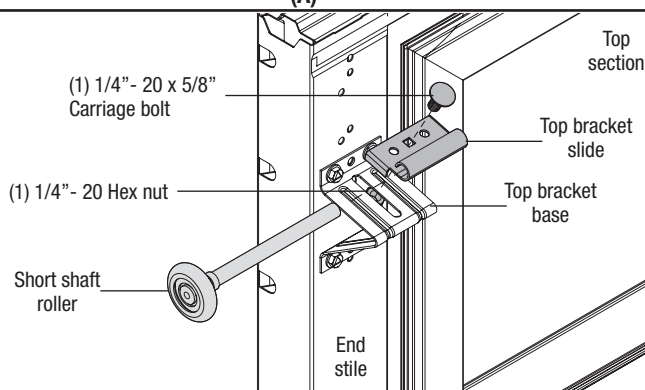
**For Top Bracket (B):** Align upper-center hole of the top bracket base with #6 hole in the end stile (See End Stile Hole Pattern on Pg 10). Ensure the top bracket base is level and aligned with the edge of the section. Secure the top bracket assembly to the endstile using (4) 1/4" - 20 x 7/8" self drilling screws. Loosen the 5/16" - 18 nut on the top bracket assembly. Insert a short shaft roller into the top bracket slide. The top bracket slide will be adjusted and tightened in Step 18. Repeat for the opposite side.

**NOTE:** For windload specification option codes 1124, 1125, 1142 and 1144, do not insert a short shaft roller.

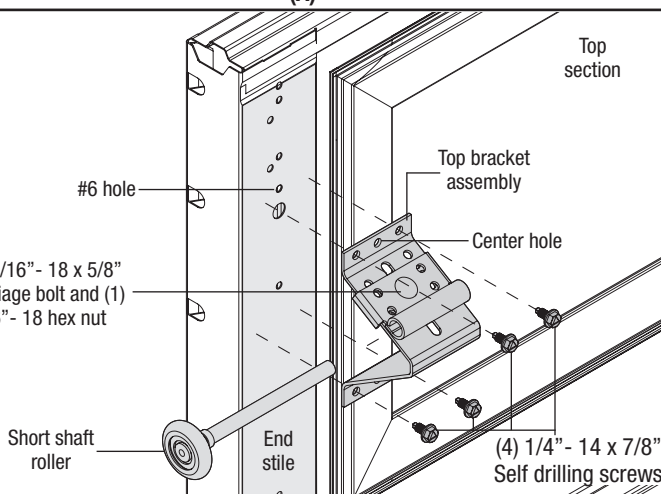
**For windload specification option codes 1124, 1125, 1142 and 1144 (C):** Two top bracket assemblies and a long shaft roller are required. Loosen the 5/16" - 18 nut on the top bracket assembly and position it flush against the stile, and centered on the stile. Insert a long shaft roller through both slides of the top bracket assembly's to align. Secure the top bracket assembly to stile using (4) 1/4" - 20 x 7/8" self drilling screws. The top bracket slide will be adjusted and tightened in Step 18. Repeat for other side.



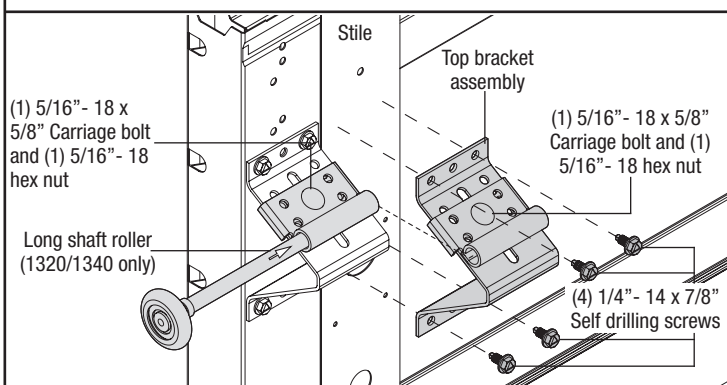
(A)



(A)



(B)



(C)

# 9

## U-Bar

Tools Needed:  
Power Drill  
7/16" Socket Driver

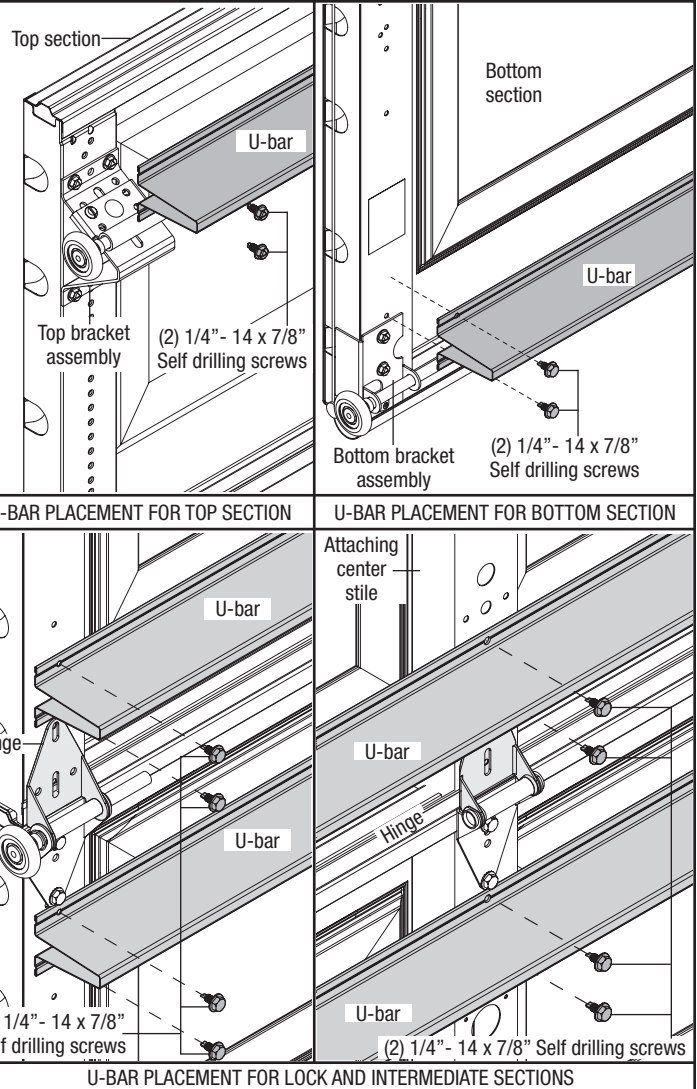
**NOTE:** For door section identification see Page 4.

Refer to the u-bar schedule to determine the required number of u-bar(s), and placement on each section.

**NOTE:** U-Bars are typically placed flush against the upper or lower hinge leaves, except on the bottom of the bottom section, and top of the top section.

Place the sections face down on a couple of sawhorses or flat clean/ smooth surface. Butt the sections together in the proper stack sequence and flip up the hinges. Position the u-bars according to the u-bar schedule, and flush against the hinge leaves (or just above the bottom brackets on the bottom section, if applicable). Center the u-bars side to side on the section, and secure using (2) 1/4" - 14 x 7/8" self drilling screws at each end stile and center stile location. Repeat for all other sections except the top of the top section.

**INSTALLATION ON THE TOP SECTION:** Position the u-bar above the top bracket assembly. Center the u-bar side to side on the section, and secure using (2) 1/4" - 14 x 7/8" self drilling screws at each end stile and center stile location.



U-Bar Schedule

U-Bar Schedule															
Door Height	# of sections	Section	Position on section	Specification Options Code											
				1100/1101	1102	1103	1104	1120/1121	1122	1123/1124	1125	1140	1141	1142	1143/1144
6'- 0" to 7'- 0"	4	Bottom	Bottom					X	X			X	X		
			Top		X	X	X	X	X	X	X	X	X	X	X
		Lock	Bottom	X							X	X		X	
			Top			X	X	X	X	X	X	X	X	X	X
		Intermediate I	Bottom		X				X	X	X	X	X	X	
			Top	X		X	X	X	X	X	X	X	X	X	X
		Top	Bottom								X			X	
			Top		X	X	X	X	X	X	X	X	X	X	X
7'- 6" to 8'- 0"	5	Bottom	Bottom					X	X			X	X		
			Top		X	X	X	X	X	X	X	X	X	X	X
		Lock	Bottom	X							X	X		X	
			Top			X	X	X	X	X	X	X	X	X	X
		Intermediate I	Bottom		X				X	X	X	X	X	X	
			Top	X		X	X	X	X	X	X	X	X	X	X
		Intermediate II	Bottom				X	X			X			X	X
			Top	X	X	X	X	X	X	X	X	X	X	X	X
		Top	Bottom						X	X	X	X	X	X	
			Top		X	X	X	X	X	X	X	X	X	X	X

# 10

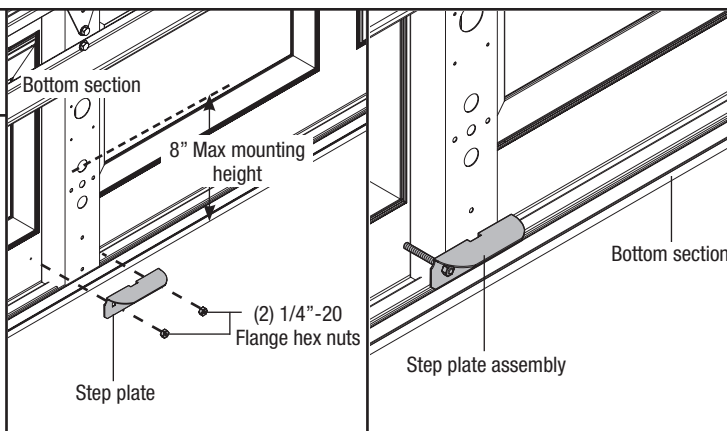
## Step Plate

Tools Needed:  
Pencil  
Power Drill  
5/16" Drill Bit  
7/16" Wrench

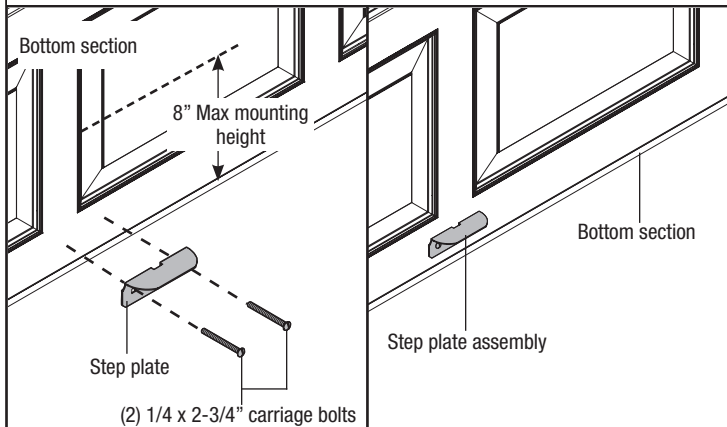
Locate the center most stile of the bottom section of the door.

On the inside of the door, center the step plate/lift handle on the center most stile no higher than 8" from the bottom of the door. Using the step plate/lift handle holes as a guide, drill a 5/16" dia. hole along each side of the stile through the face of the door. Be extremely careful to keep drill straight.

Mount step plates / lift handles back to back, straddling stile. Secure with (2) 1/4" x 2-3/4" carriage bolts and 1/4"-20 flange hex nuts.



INSIDE STEP PLATE INSTALLATION



OUTSIDE STEP PLATE INSTALLATION

# 11

## Lift Handle

Tools Needed:  
Tape Measure  
Pencil  
Power Drill  
9/32" Drill Bit  
1/2" Drill Bit  
7/16" Wrench

**NOTE:** Doors with a keyed lock do not require this lift handle.

**NOTE:** For door section identification see page 4.

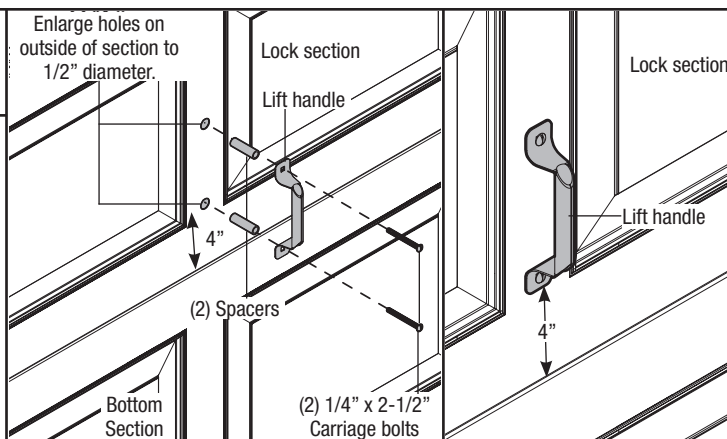
Locate the inside center most stile or the desired lift handle location on the lock (2nd) section of the door. Position the lower hole in the lift handle 4" from the bottom of the second section.

Vertical align the lift handle, use the lift handle as a template and mark the hole locations on the section.

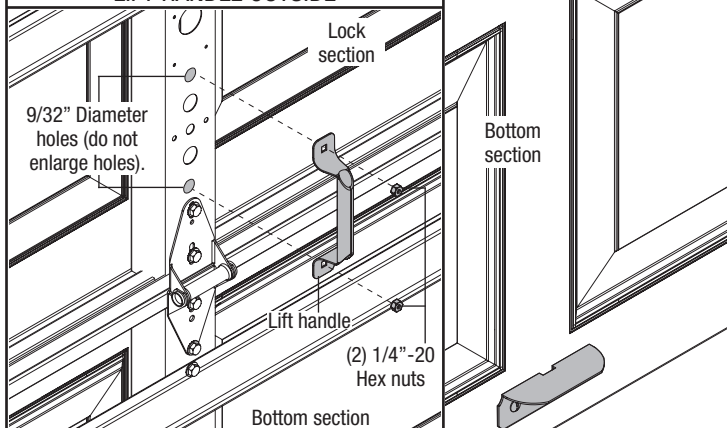
Drill (2) 9/32" dia. holes through section. Enlarge the holes from outside the door to 1/2" dia.

Assemble the outside and inside lift handle to the section using (2) 1/4" x 2-1/2" carriage bolts and nuts and (2) spacers.

**NOTE:** Do not drill through or enlarge holes on the inside of the door.



LIFT HANDLE OUTSIDE



LIFT HANDLE INSIDE

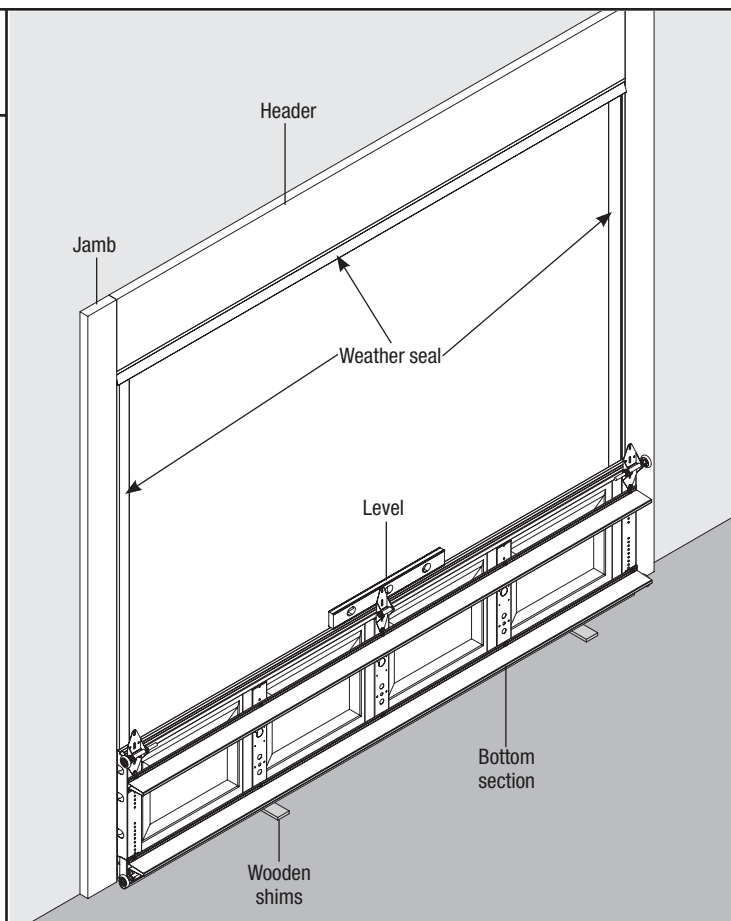


# 12

## Bottom Section

Tools Needed:  
Level  
Wood Shims

Center the bottom section in the door opening. Level section using wooden shims under the bottom astragal if necessary. Hold the section in the opening while attaching vertical tracks.



# 13

## Vertical Track

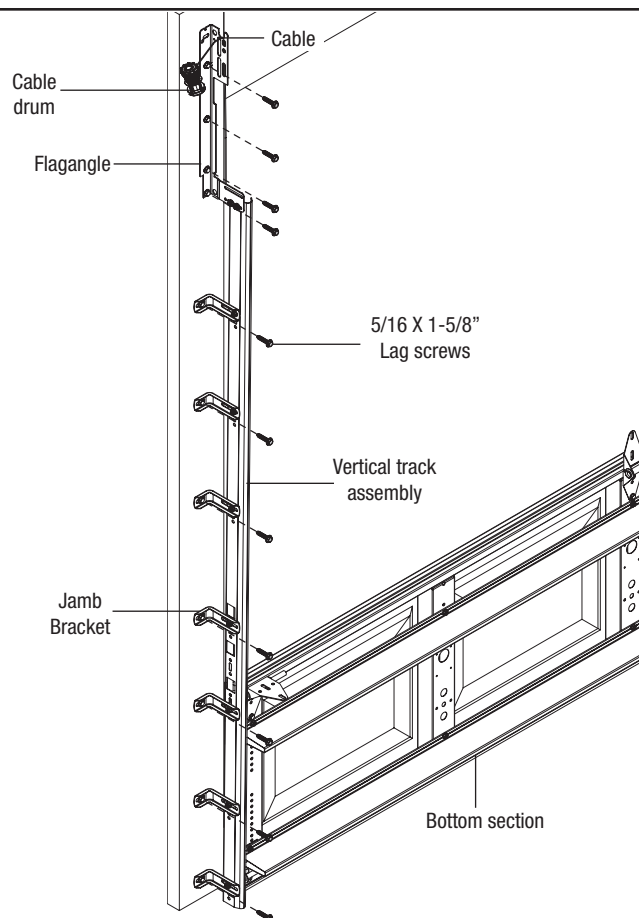
Tools Needed:  
3/16" Drill Bit  
Power Drill  
7/16" Socket Driver  
Tape Measure  
Level  
Step Ladder

**IMPORTANT:** THE TOPS OF THE VERTICAL TRACKS MUST BE LEVEL FROM SIDE TO SIDE. IF THE BOTTOM SECTION WAS SHIMMED TO LEVEL IT, THE VERTICAL TRACK ON THE SHIMMED SIDE, MUST BE RAISED THE HEIGHT OF THE SHIM.

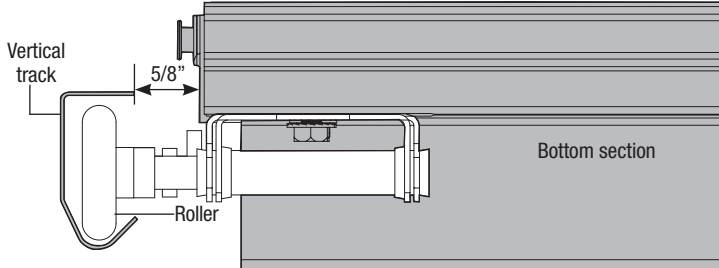
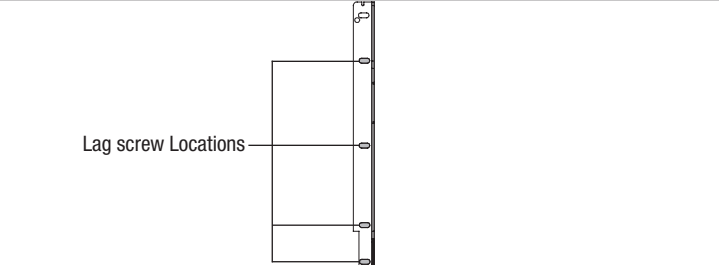
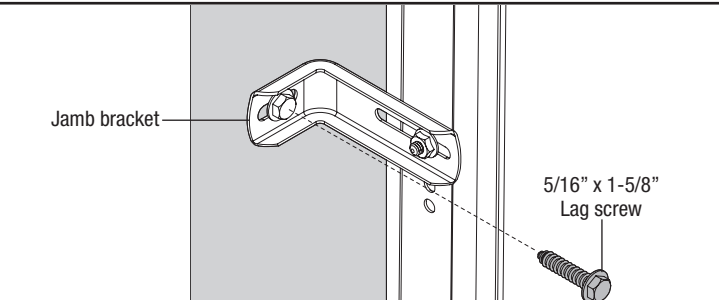
Position the left hand vertical track assembly over the rollers of the bottom section. Make sure the counterbalance cable is located between the rollers and the door jamb. Drill 3/16" pilot holes for the lag screws.

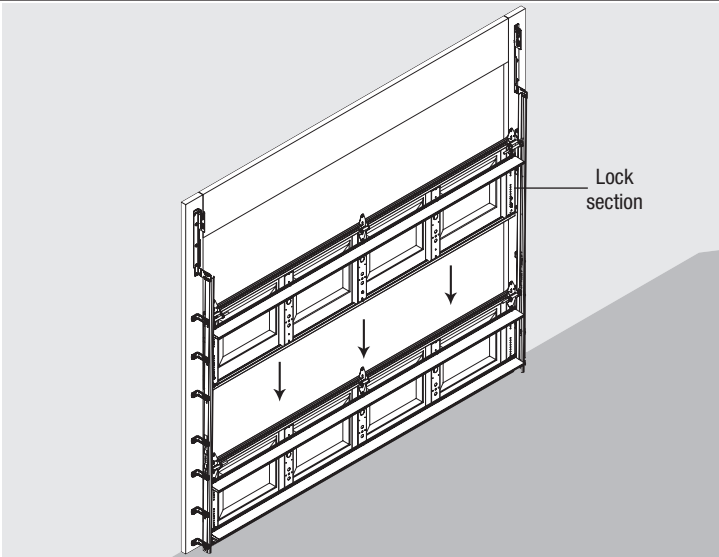
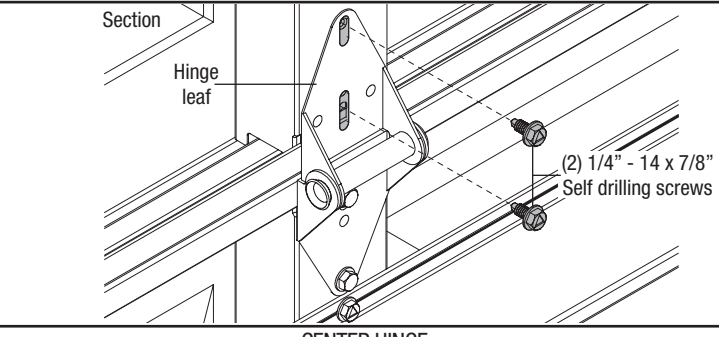
Loosely fasten jamb brackets and flagangle to the jamb using 5/16" x 1-5/8" lag screws. Tighten lag screw securing bottom jamb bracket to jamb, to maintain 5/8" spacing. Hang cable drum over flagangle.

Repeat for the right hand side.





	Vertical Track Continued...	 <p>Vertical track</p> <p>5/8"</p> <p>Roller</p> <p>Bottom section</p>
		 <p>Lag screw Locations</p> <p>FLAGANGLE</p>  <p>Jamb bracket</p> <p>5/16" x 1-5/8" Lag screw</p>

14	Stacking Sections	 <p>Lock section</p>  <p>Section</p> <p>Hinge leaf</p> <p>(2) 1/4" - 14 x 7/8" Self drilling screws</p> <p>CENTER HINGE</p>
<p>Tools Needed:</p> <p>Power Drill</p> <p>7/16" Socket Driver</p>	<p><b>NOTE:</b> For door section identification see page 4.</p> <p><b>NOTE:</b> Make sure hinges are flipped down, when stacking another section on top.</p> <p>With assistance, lift second section and guide rollers into the vertical tracks. Keeping the ends of the sections aligned, install remaining section(s), except top section, in same manner.</p> <p>Starting with the center most hinge, flip up the hinge leaf, and hold it tight against section. Secure it to the section using (2) 1/4" - 14 x 7/8" self drilling screws. Repeat for all remaining center hinges.</p> <p><b>For windload option codes (A): 1100</b></p> <p>Flip up the left hand end hinge(s) leaf, and hold tight against the section while securing it to the section using (2) 1/4" - 14 x 7/8" self drilling screws. Repeat for the right hand end hinge(s).</p> <p><b>For windload option codes (B): 1101, 1102, 1103, 1104, 1120, 1121, 1123, 1140, 1141, 1142 or 1143</b></p> <p>Flip up the left hand end hinge(s) leaf, and hold tight against the section while securing it to the section using (4) 1/4" - 14 x 7/8" self drilling screws. Repeat for the right hand end hinge(s).</p>	

## Stacking Sections Continued...

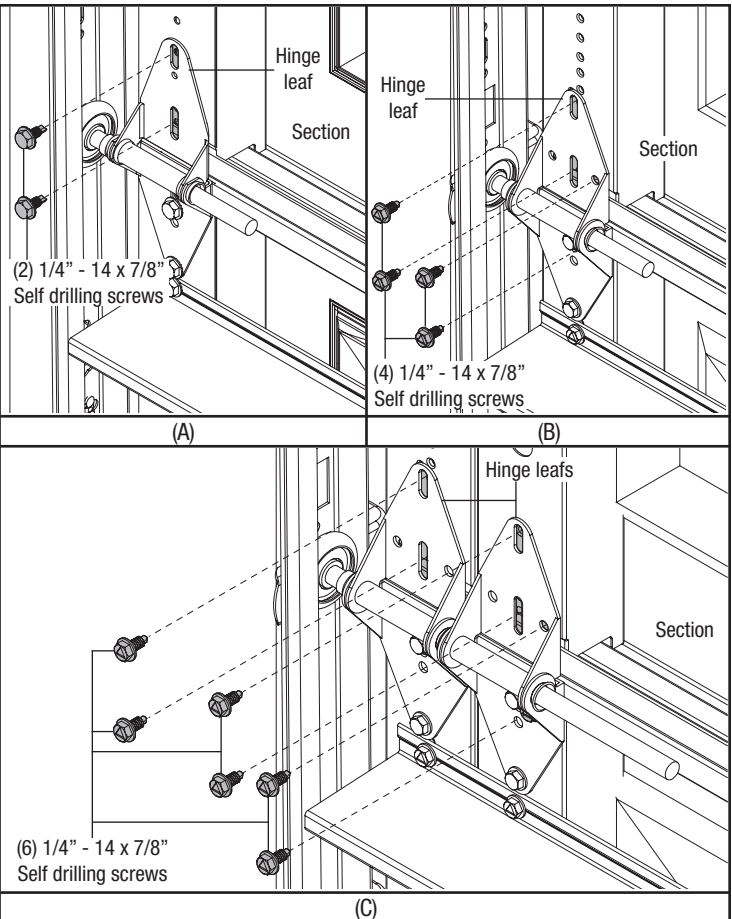
### For windload option codes (C): 1124, 1125, 1142 or 1144

Flip up the left hand end hinge(s) leaf, and hold tight against the section while securing it to the section using (6) 1/4" - 14 x 7/8" self drilling screws. Repeat for the right hand end hinge(s).

Repeat for other sections except the top section.

**IMPORTANT:** PUSH & HOLD THE HINGE LEAF(S) AGAINST SECTION WHILE SECURING WITH 1/4" - 14 X 7/8" SELF DRILLING SCREWS. CENTER HINGES HAVE (2) SCREWS, SINGLE END HINGES HAVE (4) SCREWS AND DOUBLE END HINGES HAVE (6) SCREWS.

**NOTE:** Install lock at this time (sold separately) see side lock instructions in optional installations on page 32.



# 15

## Top Section

### Tools Needed:

Hammer  
Nail  
Power Drill  
7/16 Socket Driver  
Tape Measure  
Step Ladder

Place the top section in the opening and vertically align with lower sections.

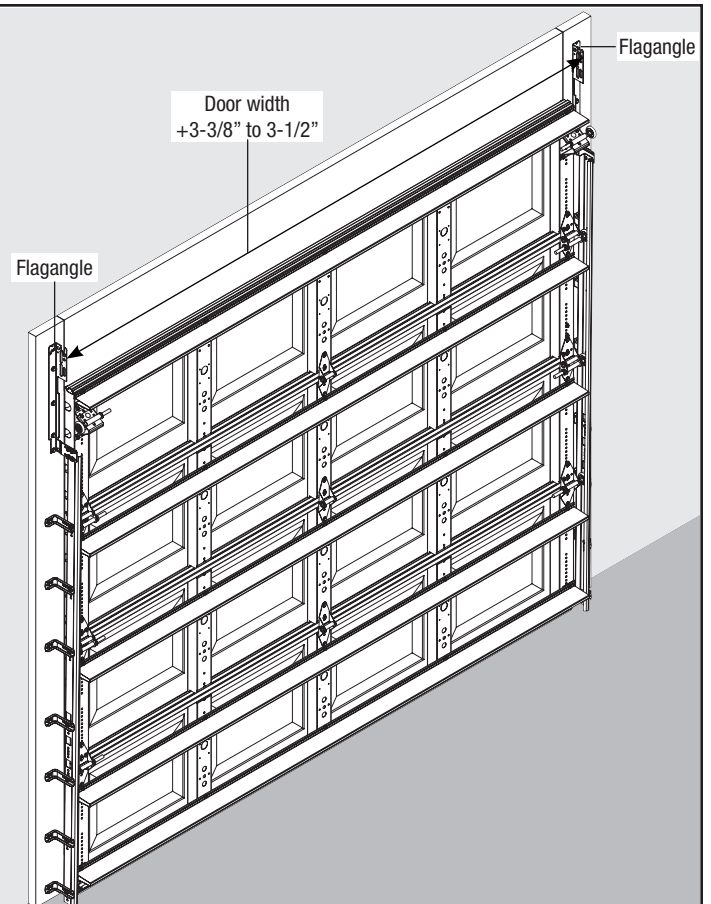
Temporarily secure the top section by driving a nail in the header near the center of the door and bending it over the top section.

Now flip up hinge leaf against section, fastening center hinges first, and end hinges last. (Refer to Step 13).

When installing a door with a TorqueMaster® counterbalance system, vertical track alignment is critical. Position flagangle between 1-11/16" (43 mm) to 1-3/4" (44 mm) from the edge of the door. Tighten the bottom lag screw. Flagangles must be parallel to the door sections.

Repeat for opposite side.

**IMPORTANT:** THE DIMENSION BETWEEN THE FLAGANGLES MUST BE DOOR WIDTH PLUS 3-3/8" (86MM) TO 3-1/2" (89 MM) FOR SMOOTH, SAFE DOOR OPERATION.



## Top Section Continued...

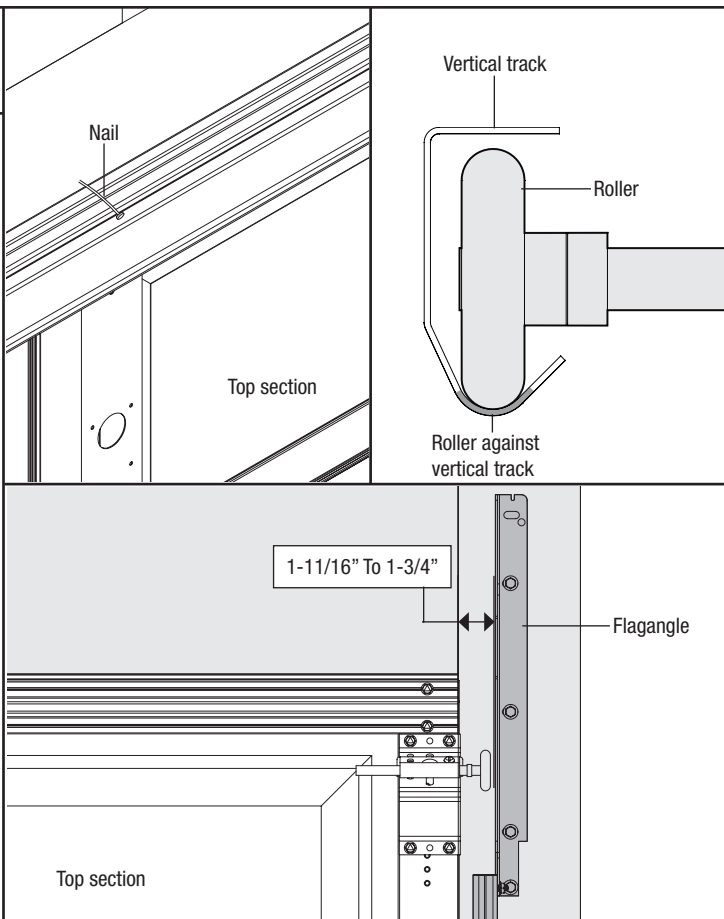
### For quick install track:

Complete the vertical track installation by securing the center jamb bracket(s) and tightening the other lag screws. Repeat for opposite side.

### For fully adjustable track:

Complete the vertical track installation by securing the center jamb bracket(s) and tightening the other lag screws. Push the vertical track against the rollers so that the rollers are touching the deepest part of the curved side of the track (see illustration); tighten all the track bolts and nuts. Repeat for opposite side.

Repeat for opposite side.



# 16

## Attaching Quick Install Flagangle to Quick Install Horizontal Track

Tools Needed:  
9/16" Socket  
Ratchet Wrench  
9/16" Wrench  
Level  
Hammer  
Step Ladder

**NOTE:** If you have universal horizontal track, skip this step and complete step 17.

To install horizontal track, place the curved end over the top roller. Align key slot of the horizontal track with the quick install tab of the flagangle. Push curved portion of horizontal track down to lock in place.

### WARNING

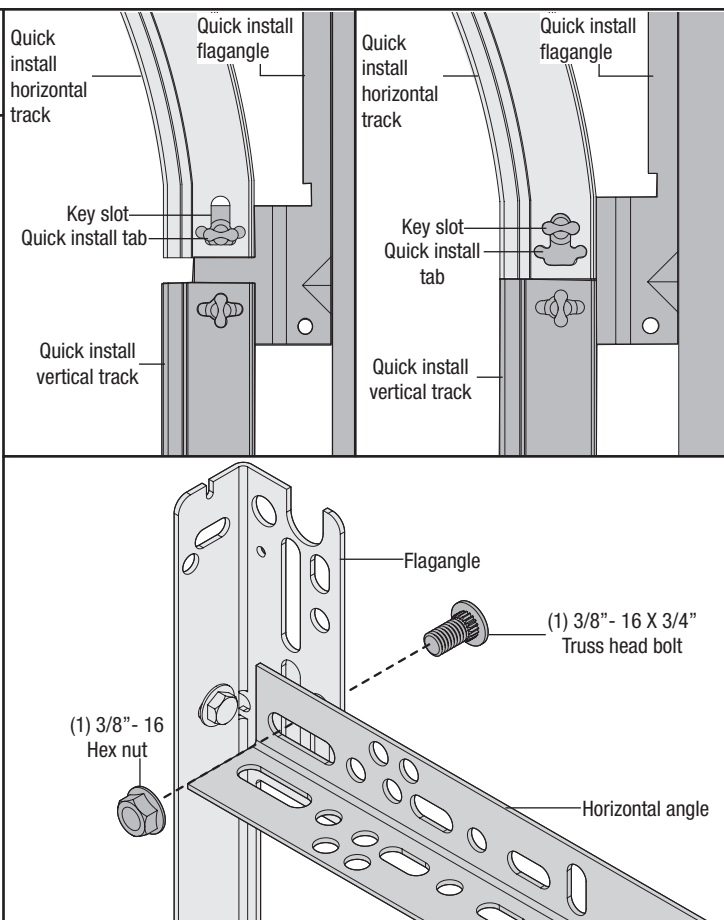
DO NOT RAISE DOOR UNTIL HORIZONTAL TRACKS ARE SECURED AT REAR, AS OUTLINED IN STEP 29, OR DOOR COULD FALL FROM OVERHEAD POSITION CAUSING SEVERE OR FATAL INJURY.

Level the horizontal track assembly and bolt the horizontal angle to the slot in the flagangle using (1) 3/8" - 16 x 3/4" truss head bolt and (1) 3/8" - 16 hex nut. Repeat for other side. Remove the nail that was temporarily holding the top section in place, installed in Step 15.

**IMPORTANT:** Failure to remove nail before attempting to raise door could cause permanent damage to top section.

**NOTE:** If an idrive® opener will be installed, position horizontal tracks slightly above level.

**NOTE:** After completing this step, continue with Step 18.



# 17

## Attaching Adjustable Flagangle to Q.I./Universal Horizontal Track

Tools Needed:  
9/16" Socket  
7/16" Socket  
Ratchet Wrench  
9/16" Wrench  
Level  
Hammer  
Flat Tip  
Screwdriver  
Step Ladder

**NOTE:** If quick install flagangles were used in step 16, skip this step and continue with step 18. If not, complete this step.

To install horizontal track, place the curved end over the top roller. Align the bottom of the horizontal track with the vertical track. Hand tighten the horizontal track to the flagangle with (2) 1/4" - 20 x 9/16" track bolts (or stud plate) and (2) 1/4" - 20 flange hex nuts.

### WARNING

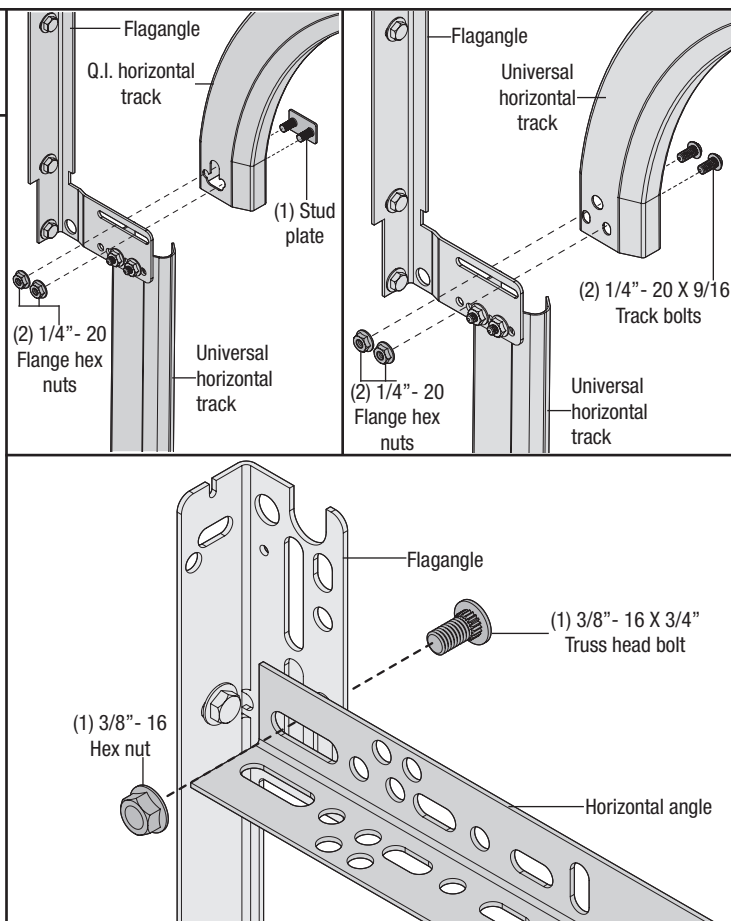
DO NOT RAISE DOOR UNTIL HORIZONTAL TRACKS ARE SECURED AT REAR, AS OUTLINED IN STEP 29, OR DOOR COULD FALL FROM OVERHEAD POSITION CAUSING SEVERE OR FATAL INJURY.

Level the horizontal track assembly and bolt the horizontal angle to the slot in the flagangle using (1) 3/8" - 16 x 3/4" truss head bolt and (1) 3/8" - 16 hex nut. Repeat for other side. Remove the nail that was temporarily holding the top section in place, installed in Step 15.

**IMPORTANT:** Failure to remove nail before attempting to raise door could cause permanent damage to top section.

**NOTE:** If an idrive® opener will be installed, position horizontal tracks slightly above level.

**NOTE:** After completing this step, continue with Step 18.



# 18

## Adjusting Top Brackets

Tools Needed:  
7/16" Wrench  
1/2" Wrench  
Step Ladder  
Tape Measure

With horizontal tracks installed you can adjust the top brackets. Vertically align the top section with the lower sections. Once aligned, position the top roller in the adjustable slide(s), out against the horizontal track.

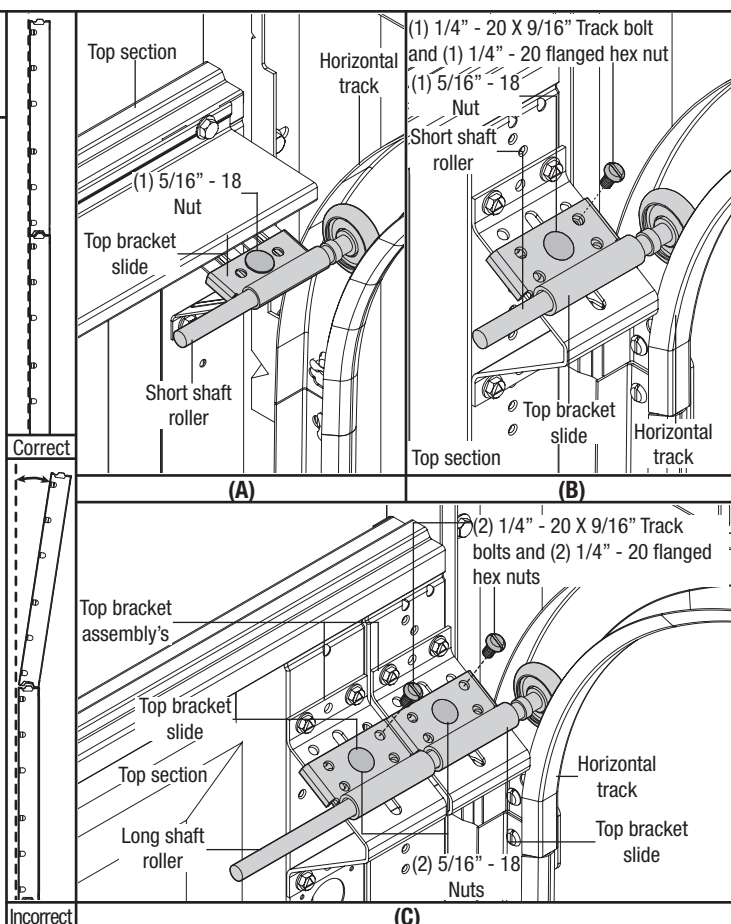
**FOR WINDLOAD OPTION CODES (A): 1100 OR 1120:** Maintaining the slide's position, tighten the (1) 1/4" - 20 nut to secure the slide to the top bracket. Repeat for other side.

**FOR WINDLOAD OPTION CODES (B): 1101, 1102, 1103, 1104, 1121, 1122, 1123, 1140, 1141 OR 1143:** Maintaining the slide's position, tighten the (1) 5/16" - 18 nut to secure the slide to the top bracket base. Now lock the slide in position using (1) 1/4" - 20 x 9/16" track bolt and (1) 1/4" - 20 hex nut through any aligning hole. Repeat for other side.

**FOR WINDLOAD OPTION CODES (C): 1124, 1125, 1142 or 1144:** Maintaining the slide's position, tighten the (2) 5/16" - 18 nuts to secure the slides to the top brackets. Now lock the top slides in position using (2) 1/4" - 20 x 9/16" track bolts and (2) 1/4" - 20 hex nuts through any two aligning holes. Repeat for other side.

**NOTE:** If you have windload option codes 1121, 1122, 1123, 1124, 1125, 1141 and 1142, pushnuts are required to be installed.

**IMPORTANT:** ACCURATELY POSITIONING THE PUSHNUT ONTO THE ROLLER STEM IS CRITICAL. ONCE THE PUSHNUT IS PUSHED ONTO THE ROLLER STEM, THE TABS MAKING CONTACT WITH THE STEEL SURFACE, WILL MAKE IT DIFFICULT TO REPOSITION THE PUSHNUT.



	<h3>Adjusting Top Brackets Continued...</h3>	
	<p><b>NOTE:</b> When positioning the pushnut onto roller stem, ensure the tabs on the pushnut are pointing away from roller stem.</p> <p>Starting with the top bracket assembly, slide (1) pushnut over the roller stem and push the pushnut towards the outside edge of top bracket assembly leaving 1/4" spacing between the outside edge of top bracket assembly and pushnut.</p> <p>Repeat same process for the end hinges on the left hand side of door, then repeat same process for other side of door.</p>	

<h1>19</h1>	<h3>TorqueMaster® Spring Tube</h3>	
<p>Tools Needed:</p> <p>None</p>	<p>TorqueMaster® springs come lubricated and pre-assembled inside the TorqueMaster® spring tube. To install, lay the TorqueMaster® spring tube on the floor (inside garage) in front of the door with the labeled end to the left.</p>	

<h1>20</h1>	<h3>Center Bracket Bushing</h3>	
<p>Tools Needed:</p> <p>None</p>	<p><b>NOTE:</b> If you are installing the idrive® opener with your garage door, skip this step and go to your idrive® Installation Instructions and Owner's Manual. After completing steps 1-13 of your idrive® Installation Instructions and Owner's Manual, rear supports will need to be fabricated / installed to support both horizontal tracks, see step 29.</p> <p><b>NOTE:</b> If you are not installing an idrive® opener with your garage door, you must install the center bracket bushing assembly. Continue to follow these instructions for non-idrive® operated garage doors.</p> <p>Being cam shaped the center bracket bushing only fits one way.</p> <p>Slide the center bracket assembly towards the center of the TorqueMaster® spring tube, from the right side as shown.</p>	



# 21

## Drum Wraps

Tools Needed:  
None

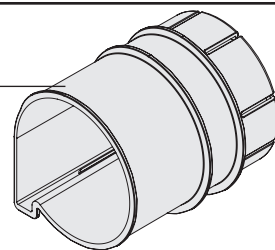
**NOTE:** Drum wraps must be installed prior to installing the TorqueMaster® plus end bracket. Drum wrap installation after the end bracket is installed, is not possible without un-installing the end bracket and it's components.

**IMPORTANT:** RIGHT AND LEFT HAND IS ALWAYS DETERMINED FROM INSIDE THE GARAGE LOOKING OUT.

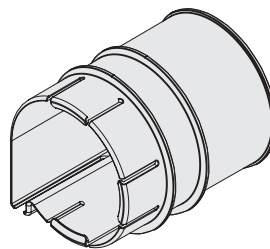
Drum wraps are identified as right and left. Slide the left hand drum wrap over the left side of the TorqueMaster® spring tube assembly with the tabs facing left. Continue sliding the left hand drum wrap towards the center of the TorqueMaster® spring tube assembly.

Repeat for right hand side.

Right hand drum wrap



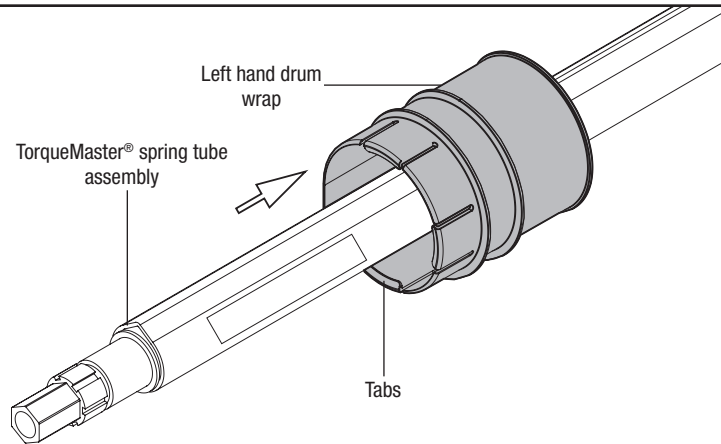
Left hand drum wrap



Left hand drum wrap

TorqueMaster® spring tube assembly

Tabs



# 22

## Cable Drums

Tools Needed:

Tape Measure  
Step ladder

**IMPORTANT!** RIGHT AND LEFT HAND IS ALWAYS DETERMINED FROM INSIDE THE GARAGE LOOKING OUT.

Shake the TorqueMaster® spring tube assembly gently to extend the winding shafts out about 5" on each side. For single spring applications, there will be no left hand spring in the TorqueMaster® spring tube assembly.

Lift the TorqueMaster® spring tube assembly and rest it on the top of the flagangles.

**NOTE:** Cable drums are marked right and left hand. Cable drums and TorqueMaster® spring tube assembly are cam shaped to fit together only one way.

Pre-wrap the Torquemaster® Plus cable drum with the counter balance cable 1-1/2 wraps (see illustration).

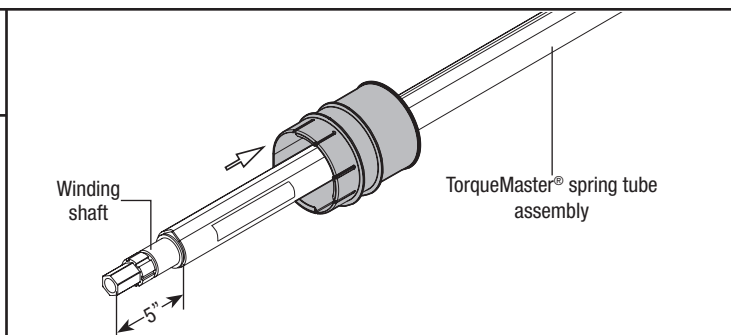
To install the cable drum, slide the correct cable drum over the winding shaft until the cable drum seats against the TorqueMaster® spring tube assembly.

The winding shaft must extend past the cable drum far enough to expose the splines and the groove. Align the winding shaft groove with the round notch in the flagangle.

Winding shaft

5"

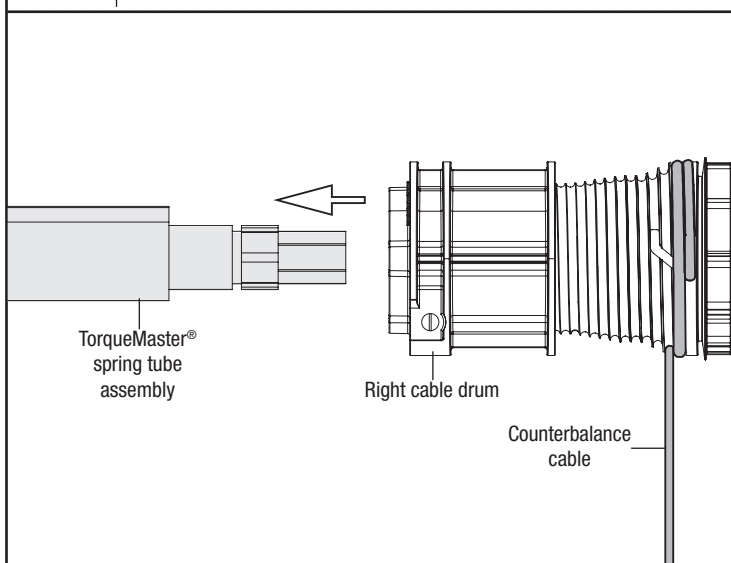
TorqueMaster® spring tube assembly



TorqueMaster® spring tube assembly

Right cable drum

Counterbalance cable



1-1/2 WRAP SHOWN

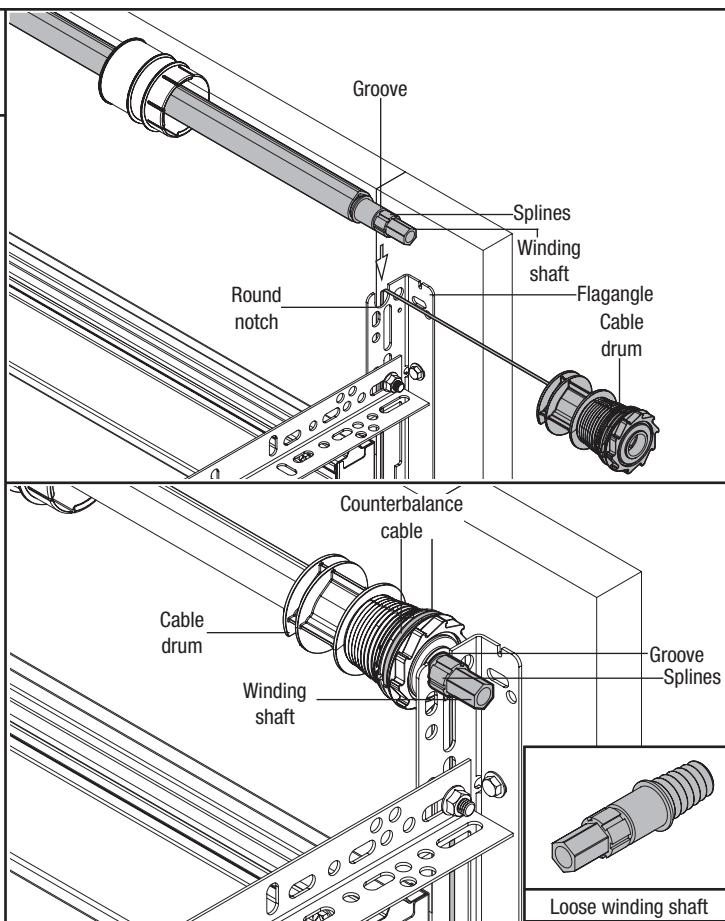


## Cable Drums Continued...

For double spring applications, repeat for opposite side.

For single spring applications, insert the loose winding shaft into the left hand cable drum prior to sliding the cable drum over the TorqueMaster® spring tube assembly.

**NOTE:** On single spring applications, take care in handling the loose winding shaft (left side) so that it does not slide back into the TorqueMaster® spring tube assembly.



# 23

## End Brackets

Tools Needed:  
Power Drill  
7/16" Socket Driver  
1/2" Wrench  
Step ladder

**IMPORTANT:** WARNING TAGS MUST BE SECURELY ATTACHED TO BOTH END BRACKETS.

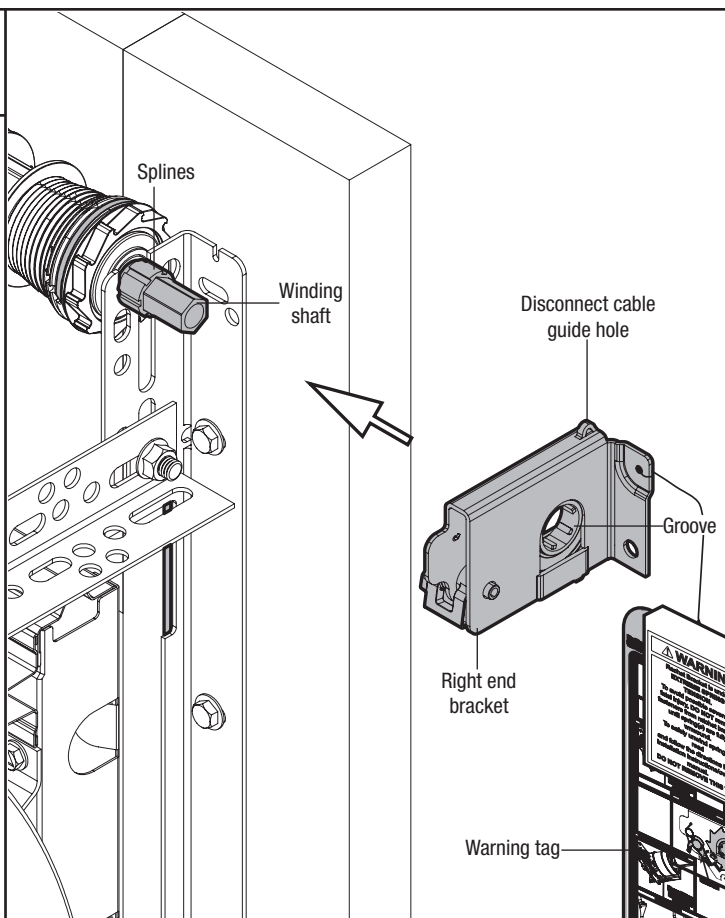
End brackets are right and left hand. You can identify the right hand end bracket by the disconnect cable guide hole in the top of the bracket.

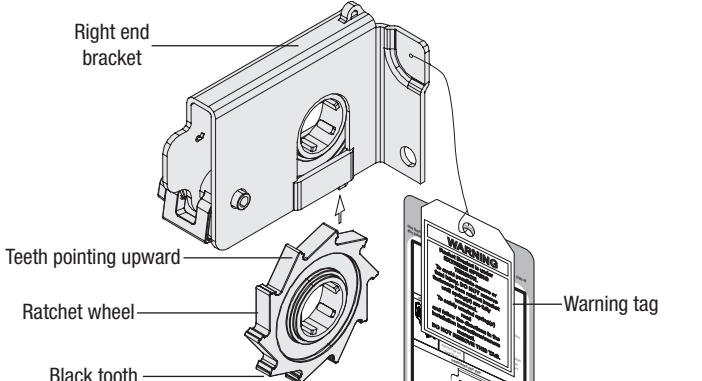
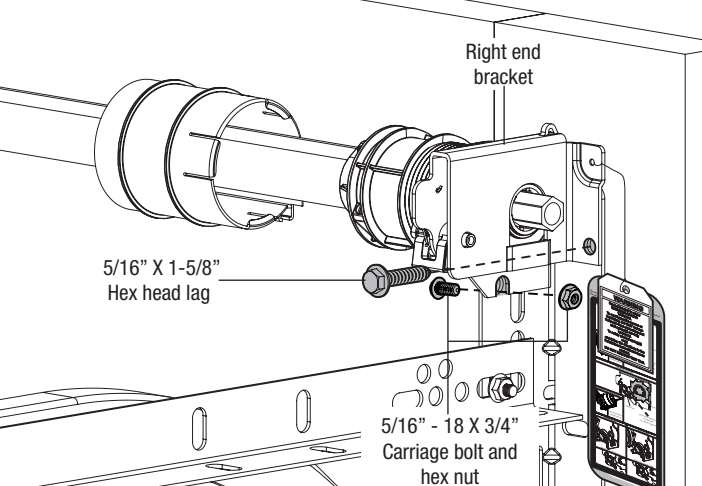
Beginning with either side, slide the end bracket onto the winding shaft so that the grooves in the ratchet wheel fit onto the winding shaft splines.

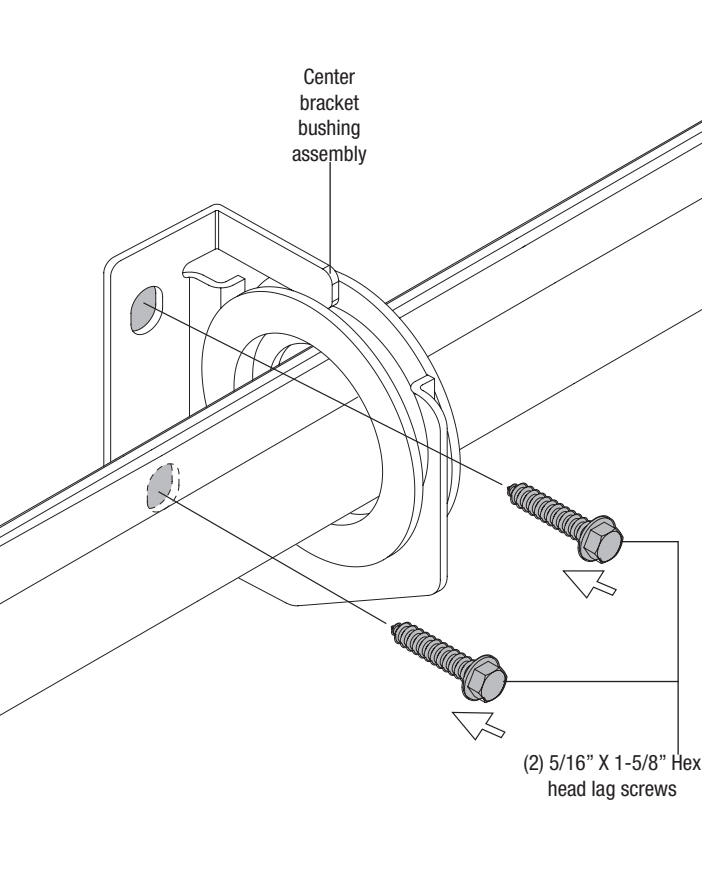
First secure end bracket to the flagangle using (1) 5/16" - 18 x 3/4" carriage bolt and (1) 5/16" - 18 hex nut. Now, secure end bracket to the jamb using (1) 5/16" x 1-5/8" hex head lag screw. Repeat for left hand end bracket.

**NOTE:** Ensure the 5/16" - 18 x 3/4" carriage bolt is going through the flagangle first, and the 5/16" - 18 hex nut is on the outside of the end bracket.

**IMPORTANT:** IF RATCHET GEAR SLIPS OUT OF END BRACKET, ENSURE THE TEETH ON RATCHET WHEEL ARE POINTING UPWARD IN A CLOCKWISE POSITION WHEN SLIDING IT BACK INSIDE THE END BRACKET.



	<h2>End Brackets Continued...</h2>	 <p>Right end bracket</p> <p>Teeth pointing upward</p> <p>Ratchet wheel</p> <p>Black tooth</p> <p>Warning tag</p>
		 <p>Right end bracket</p> <p>5/16" X 1-5/8" Hex head lag</p> <p>5/16" - 18 X 3/4" Carriage bolt and hex nut</p>

<h1>24</h1>	<h2>Securing Center Bracket Assembly</h2>	 <p>Center bracket bushing assembly</p> <p>(2) 5/16" X 1-5/8" Hex head lag screws</p>
<p>Tools Needed:</p> <ul style="list-style-type: none"> <li>Power Drill</li> <li>3/16" Drill Bit</li> <li>7/16" Socket Driver</li> <li>Step ladder</li> </ul>	<p><b>NOTE:</b> If you are not installing the idrive® opener on your garage door, you must install the center bracket bushing assembly, follow these instructions.</p> <p>To locate the center bracket, mark the header halfway between the flagangles and level the TorqueMaster® spring tube. Drill 3/16" pilot holes into header for the lag screws. Fasten the metal bracket to the header using (2) 5/16" X 1-5/8" lag screws.</p>	

# 25

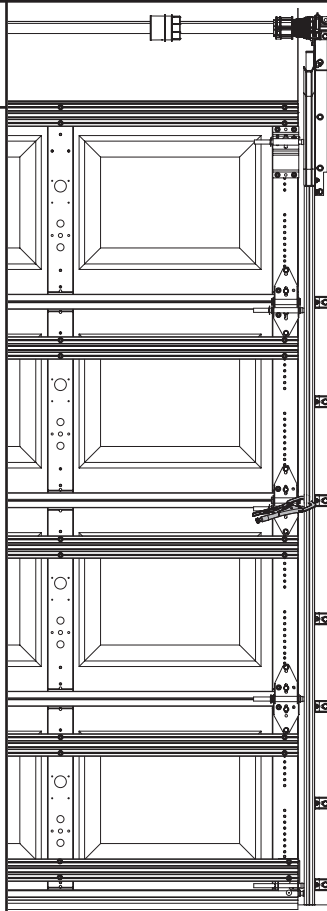
## Securing Door for Spring Winding

Tools Needed:  
Vice Clamps

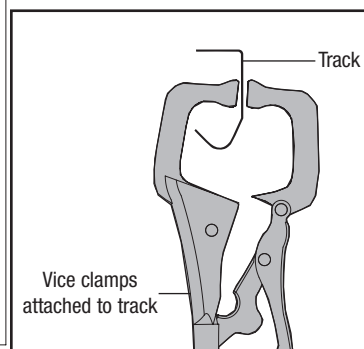
Place vice clamps onto both vertical tracks just above the third roller. This is to prevent the garage door from raising while winding counterbalance springs.

### WARNING

FAILURE TO PLACE VICE CLAMPS ONTO VERTICAL TRACK CAN ALLOW DOOR TO RAISE AND CAUSE SEVERE OR FATAL INJURY.



Place vice clamps  
above 3rd roller



INSTALLATION

# 26

## Cable Adjustment

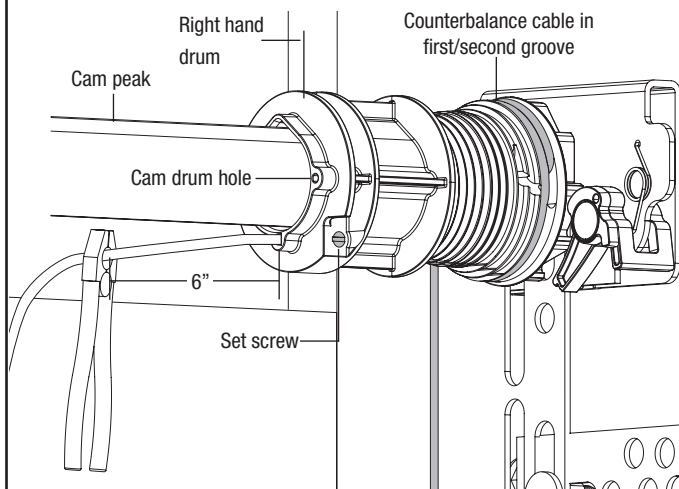
Tools Needed:  
Pliers/Wire Cutters  
Flat Tip Screwdriver  
Step ladder

Check to ensure the cable is aligned and seated in the first groove of the cable drum. Snug the set screw, and then tighten an additional 1-1/2 turns.

**IMPORTANT:** ENSURE THE CABLE IS ALIGNED AND SEATED IN THE FIRST GROOVE OF THE CABLE DRUM PRIOR TO WINDING SPRINGS.

Measure approximately 6" of cable and cut off excess cable. Insert end of cable in hole of cable drum.

**NOTE:** Illustrations show the right TorqueMaster® Plus drum, left TorqueMaster® Plus drum is symmetrically opposite.



1-1/2 WRAP SHOWN

## Winding Springs

## Tools Needed:

Ratchet  
5/8" Socket  
3" Extension  
Gloves  
Step ladder

**⚠ WARNING**

IT IS RECOMMENDED THAT LEATHER GLOVES BE WORN WHILE WINDING THE TORQUEMASTER® PLUS SPRINGS. FAILURE TO WEAR GLOVES MAY CAUSE INJURY TO HANDS.

Double check to ensure the counterbalance cable is aligned in the first groove of the cable drum Step 26. There are two methods for counting the spring turns as you wind. One method is to identify the black tooth on the ratchet wheel inside of the end bracket. When the wheel makes one revolution and the tooth returns to its starting point, one turn has been made. The other method is to make a mark on the winding shaft (or socket) and end bracket, and count your turns in this manner.

Starting on the right hand side. Turn the pawl knob on the end bracket to the upper position. Using a ratchet wrench with a 16mm 5/8" socket.

**NOTE:** A 76 mm 3" extension is also recommended for added clearance from the horizontal angle.

Wind the spring by rotating the winding shaft counter clockwise, while watching either the black tooth on the ratchet wheel or the mark on the winding shaft.

**IMPORTANT:** PAWL KNOB MUST BE IN UPPER POSITION TO ADD / REMOVE REQUIRED NUMBER OF SPRING TURNS.

After 2-3 turns, remove the ratchet wrench and adjust the cable on the left side. Ensure the cables are in the first groove of the cable drums, as shown in Step 25.

**NOTE:** Single spring applications require no spring winding on left hand side, but cable tension needs to be adjusted.

**IMPORTANT:** COUNTERBALANCE CABLE TENSION MUST BE EQUAL ON BOTH SIDES PRIOR TO FULLY WINDING SPRINGS.

SEE THE SPRING TURN CHART FOR THE REQUIRED NUMBER OF TURNS:

**For single spring applications:**

Return to the right hand and continue winding the spring to the required number of turns for your door. Place pawl knob in lower position.

**For double spring applications:**

Either use the black tooth on the ratchet wheel for winding reference or place a mark on the winding shaft and end bracket. Place the ratchet with 5/8" socket onto the left hand winding shaft end. To wind the spring, rotate the winding shaft clockwise, while watching the black tooth on the ratchet wheel or the mark on the winding shaft.

Rotate the winding shaft to the required number of turns for your door. Then return to the right hand side and wind the right hand spring to the required number of turns. Place pawl knob in lower position on both sides.

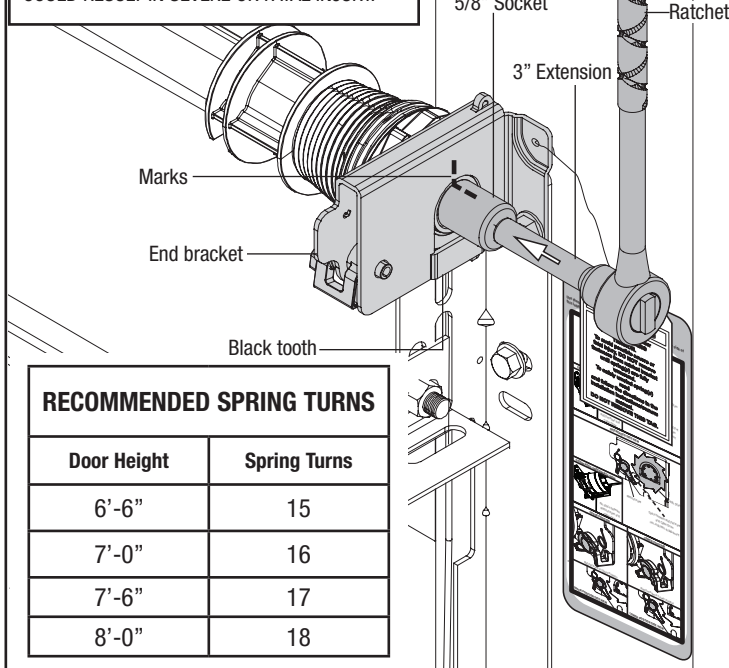
**IMPORTANT:** MARK NUMBER OF SPRING TURNS ON TORQUEMASTER® PLUS END BRACKET WARNING TAG.

**NOTE:** Since total turns to balance door can deviate from SPRING TURN CHART values by  $\pm 1/2$  turn, adjustments to the recommended number of turns may be required after rear hangers assembly is completed.

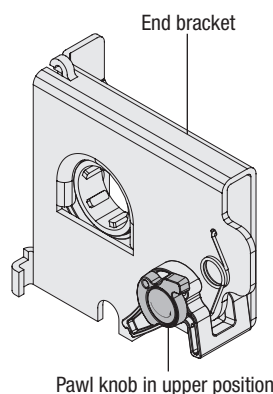
**IMPORTANT:** HOLD THE DOOR DOWN TO PREVENT IT FROM RAISING UNEXPECTEDLY IN THE EVENT THE SPRING WAS OVERWOUND AND CAUTIOUSLY REMOVE VICE CLAMPS FROM VERTICAL TRACKS.

**⚠ WARNING**

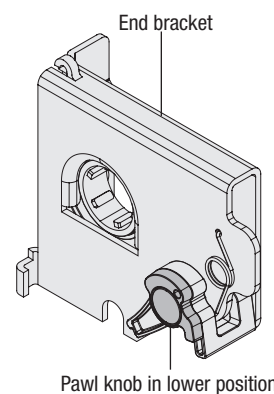
PRIOR TO WINDING OR MAKING ADJUSTMENTS TO THE SPRINGS, ENSURE YOU'RE WINDING IN THE PROPER DIRECTION AS STATED IN THE INSTALLATION INSTRUCTIONS. OTHERWISE, THE SPRING FITTINGS MAY RELEASE FROM SPRING IF NOT WOUND IN THE PROPER DIRECTION AND COULD RESULT IN SEVERE OR FATAL INJURY.

**RECOMMENDED SPRING TURNS**

Door Height	Spring Turns
6'-6"	15
7'-0"	16
7'-6"	17
8'-0"	18



Pawl knob in upper position



Pawl knob in lower position

Spring Turns	
Door Height	Spring Turns
(6' - 0")	14
(6' - 3")	14 - 1/2
(6' - 5")	15
(6' - 6")	15
(6' - 8")	15 - 1/2
(6' - 9")	15 - 1/2
(7' - 0")	16
(7' - 3")	16 - 1/2
(7' - 6")	17
(7' - 9")	17 - 1/2
(8' - 0")	18

Number of Installed Spring Turns

Location for marking  
number of installed  
spring turns

**BACK OF TORQUEMASTER® PLUS END BRACKET WARNING TAG(S)**

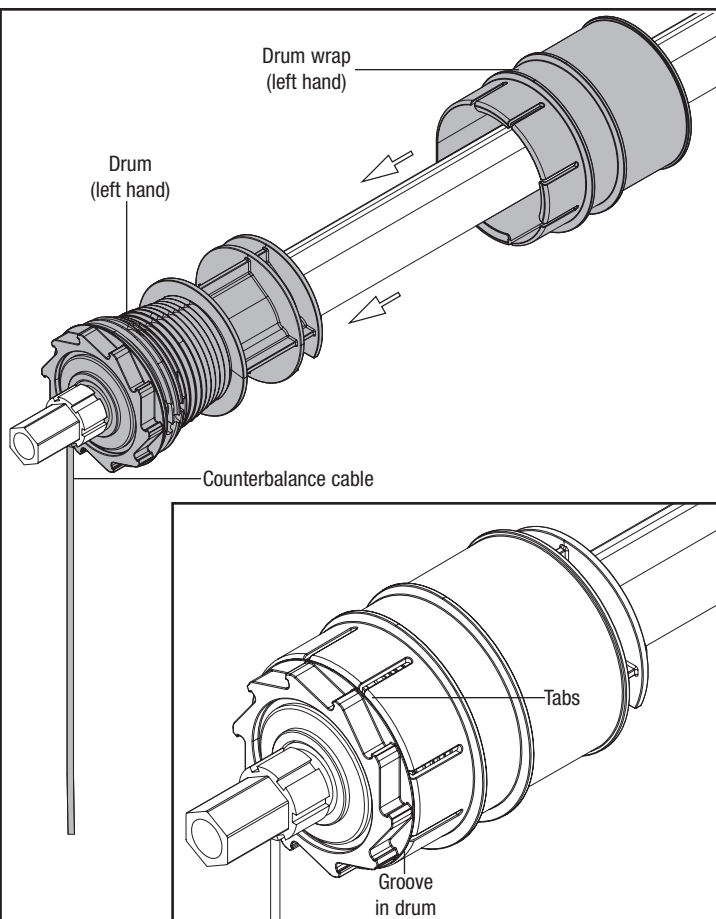
# 28

## Drum Wrap Installation

Tools Needed:  
Step ladder

To install drum wraps, position the left hand drum wrap over the left hand drum, align with counterbalance cable; slide groove in drum wrap towards the left until tabs snap over drum in between drum and ratchet gear. Repeat for right hand side.

**IMPORTANT:** RIGHT AND LEFT HAND ARE ALWAYS DETERMINED FROM INSIDE THE GARAGE LOOKING OUT.



# 29

## Rear Support

Tools Needed:  
Ratchet Wrench  
1/2" Socket  
1/2" Wrench  
(2) Vice Clamps  
Tape Measure  
Level  
Hammer  
Step ladder

Raise the door until the top section and half of the next section are in a horizontal position. Do not raise door any further since rear of horizontal track is not yet supported.

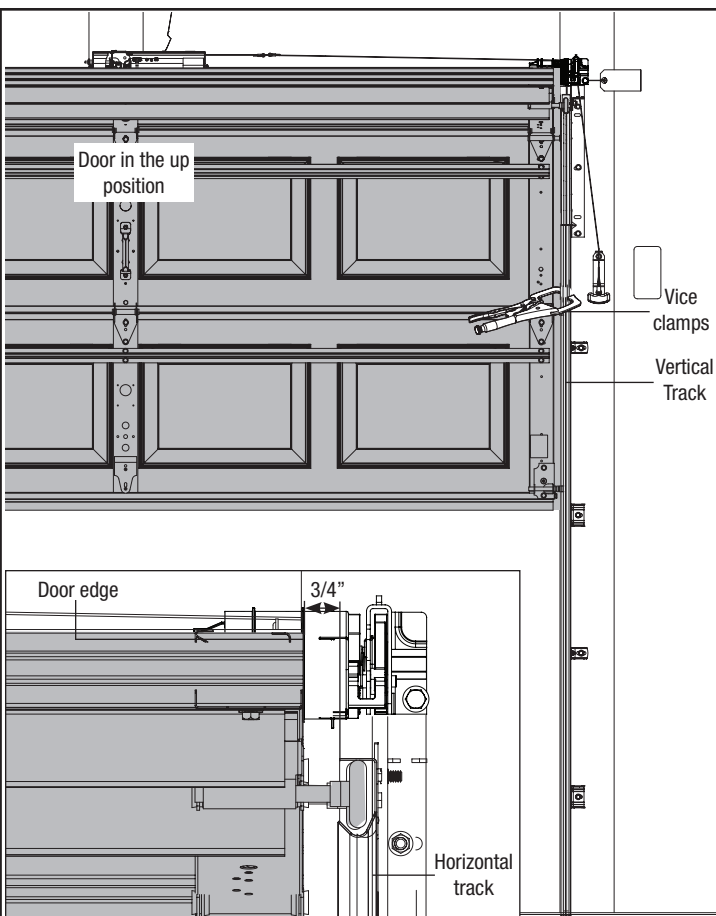
### **WARNING**

RAISING DOOR FURTHER CAN RESULT IN DOOR FALLING AND CAUSE SEVERE INJURY OR DEATH. Clamp a pair of vice clamps on the vertical tracks just above the second roller on one side, just below the second roller on the other side. This will prevent the door from raising or lowering while installing the rear support. Using perforated angle, (2) 5/16"-1 - 5/8" hex head lag screws and 5/16" bolts with nuts (may not be supplied), fabricate rear support for horizontal tracks. Attach horizontal tracks to the rear supports with 5/16"-18 x 1-1/4" hex bolts and nuts (may not be supplied). Horizontal tracks must be level and parallel to the door within 3/4" maximum of door edge.

### **WARNING**

KEEP HORIZONTAL TRACK PARALLEL AND WITHIN 3/4" MAXIMUM OF DOOR EDGE, OTHERWISE DOOR COULD FALL, RESULTING IN SEVERE INJURY OR DEATH.

**IMPORTANT:** DO NOT SUPPORT THE WEIGHT OF THE DOOR ON ANY PART OF THE HORIZONTAL TRACK HANGER THAT CANTILEVERS 4" OR MORE BEYOND A SOUND FRAMING MEMBER.





## Rear Support Continued...

**NOTE:** If rear supports are to be installed over drywall, use (2) 5/16" x 2" hex head lag screws.

**NOTE:** If an idrive® opener is installed, position horizontal tracks one hole above level when securing it to rear supports.

**NOTE:** 26" angle must be attached to sound framing members and nails should not be used.

Now, permanently attach the weather seal on both door jambs and header (Temporarily attached in PREPARING THE OPENING on page 6). Avoid pushing weather seal too tightly against face of door.

### **WARNING**

PRIOR TO WINDING OR MAKING ADJUSTMENTS TO THE SPRINGS, ENSURE YOU'RE WINDING IN THE PROPER DIRECTION AS STATED IN THE INSTALLATION INSTRUCTIONS. OTHERWISE, THE SPRING FITTINGS MAY RELEASE FROM SPRING IF NOT WOUND IN THE PROPER DIRECTION AND COULD RESULT IN SEVERE OR FATAL INJURY.

Now, lift door and check it's balance. Adjust, if door lifts by itself (hard to pull down) or if door is difficult to lift (easy to pull down). Anytime spring adjustments are made, ratchet pawl knob must be in the upper position to add/remove required number of spring turns (refer to step 27). To adjust springs, only add or remove a maximum of 3/10 of a turn (three teeth of ratchet wheel) at a time. Both sides need to be adjusted equally on double spring doors.

**Add Spring Tension:** The ratchet wheel is made of 10 teeth. To add spring tension, ensure the ratchet and socket is set so that it will tighten counter clockwise on the right hand side, and clockwise on the left hand side. Place the ratchet with 5/8" socket onto the winding shaft, pull down to add 3/10 of a turn. Watch as three teeth of the ratchet wheel pass over the pawl, creating three "clicks".

**Remove Spring Tension:** To remove spring tension, ensure the ratchet and socket is set so that it will tighten counter clockwise on the right hand side and clockwise on the left hand side. It is recommended that a regular 5/8" wrench be used. Place the wrench onto the winding shaft. Pull down on the wrench to relieve pressure between the pawl and the ratchet wheel. Push in on the pawl to allow the three ratchet wheel teeth to pass by the pawl, as you carefully allow the wrench to be rotated upward by the spring tension. Release the pawl to allow it to engage with the ratchet wheel.

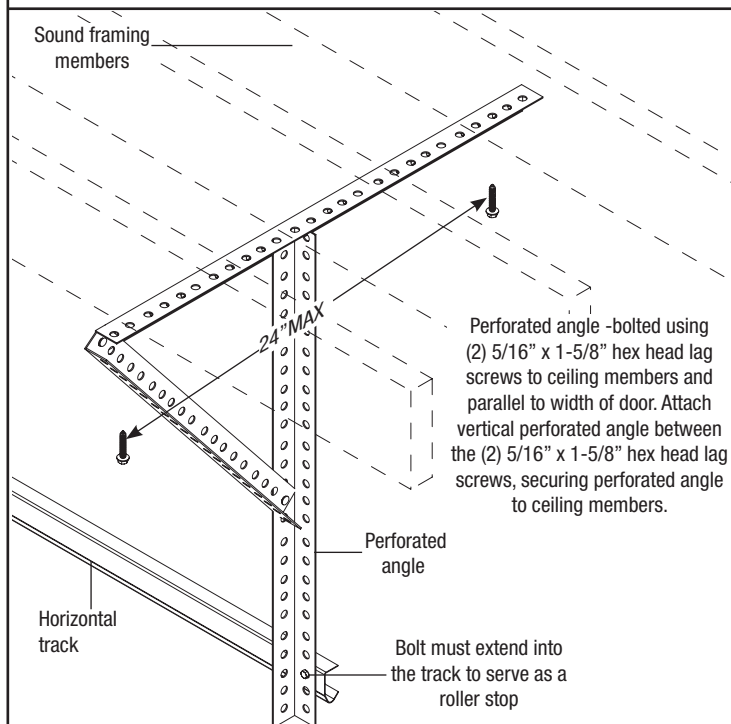
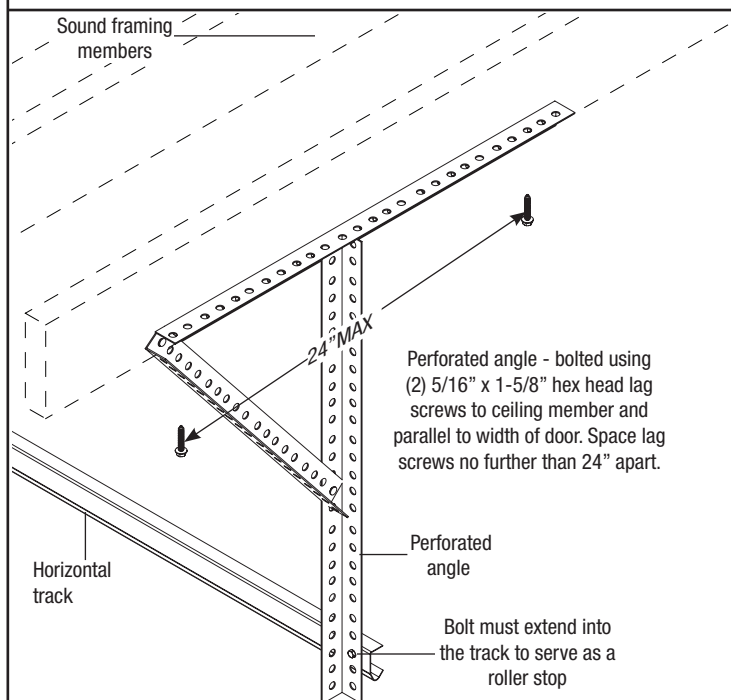
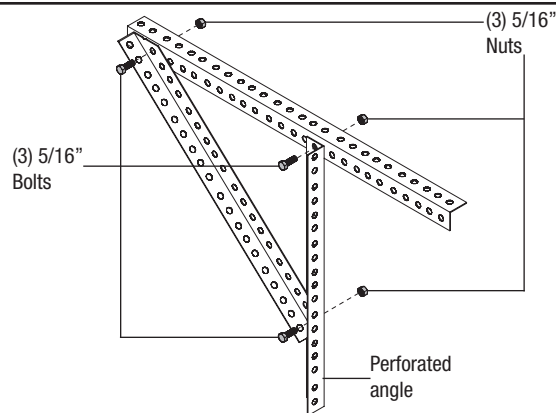
**IMPORTANT:** BE PREPARED TO HOLD THE FULL TENSION OF THE SPRING.

**IMPORTANT:** DO NOT ADD OR REMOVE MORE THAN 1 SPRING TURNS (1 SPRING TURN EQUALS 10 TEETH ON RATCHET WHEEL) FROM THE RECOMMENDED NUMBER OF TURNS SHOWN ON THE SPRING TURN CHART.

If the door still does not operate easily, lower the door into the closed position, UNWIND SPRING(S) COMPLETELY, and recheck the following items:

- 1.) Check the door for level.
- 2.) Check the TorqueMaster® tube and flagangles for level and plumb.
- 3.) Check the distance between the flagangles must be door width plus 3-3/8" to 3-1/2".
- 4.) Check the counterbalance cables for equal tension adjust if necessary.
- 5.) Rewind the spring(s).
- 6.) Make sure door isn't rubbing on jambs.

**NOTE:** If an idrive was installed and you have completed your rear support installation, refer to the idrive Installation Instructions and Owner's Manual to complete your idrive installation.







## TorqueMaster® Plus Reset Instructions

Tools Needed:  
5/8" Socket  
Ratchet Wrench  
3" Extension  
Vice Clamps (Pair)  
3" Extension  
Step Ladder

**IMPORTANT!** THE OPENER FORCE SETTINGS MUST BE ADJUSTED ACCORDING TO THE MANUFACTURER'S INSTRUCTIONS. SOME LIGHTER WEIGHT DOORS ARE DESIGNED TO OPERATE WITH A SINGLE COUNTER-BALANCE SPRING. IF THAT COUNTER-BALANCE SPRING BREAKS AND THE OPENER'S FORCE SETTINGS ARE NOT ADJUSTED ACCORDING TO THE MANUFACTURER'S SPECIFICATIONS, THE OPENER MAY THEN HAVE THE CAPABILITY OF LIFTING THE DOOR TO THE OPEN POSITION, DESPITE THE BROKEN COUNTER-BALANCE SPRING. THIS SCENARIO WILL CAUSE THE COUNTER-BALANCE CABLES TO GO SLACK AND ENGAGE THE TORQUEMASTER® PLUS SAFETY SYSTEM. IF A PERSON IS UNAWARE OF THE SLACK CABLES AND THE ENGAGED TORQUEMASTER® PLUS SAFETY SYSTEM AND ACTIVATES THE MIS-ADJUSTED OPENER, DAMAGE WILL LIKELY OCCUR TO THE DOOR AND OPENER. THE POTENTIAL ALSO EXISTS THAT THE PERSON ACTIVATING THE OPENER UNDER THIS SCENARIO COULD BE SEVERELY INJURED.

### WARNING

READ THESE INSTRUCTIONS CAREFULLY BEFORE ATTEMPTING TO RESET THE TORQUEMASTER® PLUS SYSTEM. IF IN QUESTION ABOUT ANY OF THE PROCEDURES, DO NOT PERFORM THE WORK. INSTEAD, HAVE A TRAINED DOOR SYSTEMS TECHNICIAN RESET THE SYSTEM.

### WARNING

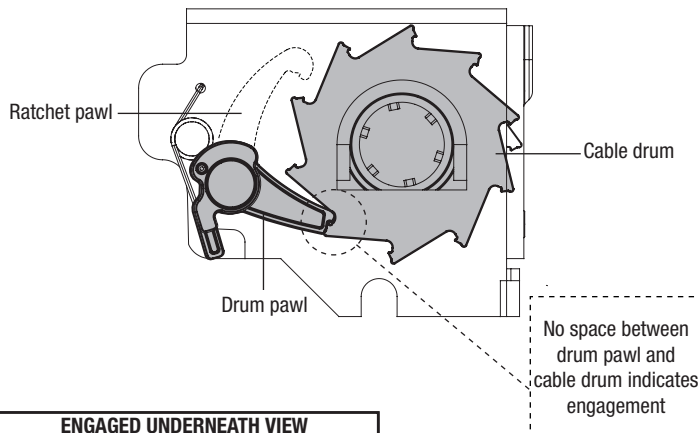
TO AVOID SEVERE OR FATAL INJURY, DO NOT STAND OR WALK UNDER A MOVING DOOR, OR PERMIT ANYONE TO STAND OR WALK UNDER AN ELECTRICALLY OPERATED DOOR

This door is equipped with a TorqueMaster® Plus system, a safety feature which prevents the door from rapidly descending in case of spring failure or forceful manual operation. If the system engages with the door in the open position, personal items that are left unattended in the garage or home are at risk to theft. To insure the safekeeping of these items, close the garage door.

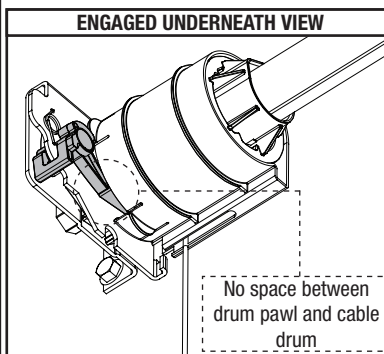
#### Typical signs of an engaged system:

**Single spring system:** Visually inspect the TorqueMaster® Plus right hand end bracket to confirm that the system has engaged (see illustration). If the system is engaged then the door will not close. If the opener force settings were properly set during the initial installation, the door will not open. If the opener can physically overcome the weight of the door and lift it to the open position, then the counterbalance cables will be slack. If the system is engaged, DO NOT attempt to make the repairs. Instead, have a trained door system technician make the necessary repairs to cables, spring assemblies and other hardware.

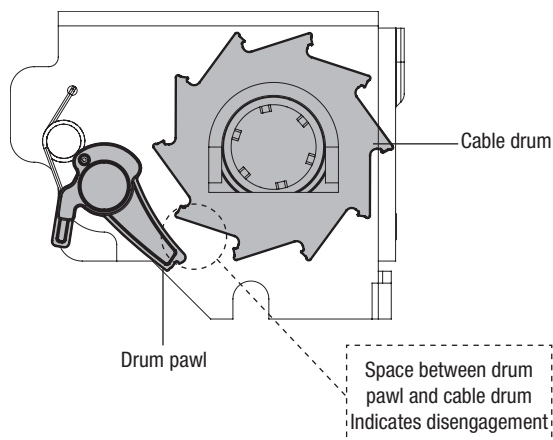
#### ENGAGED SYSTEM SIDE VIEW



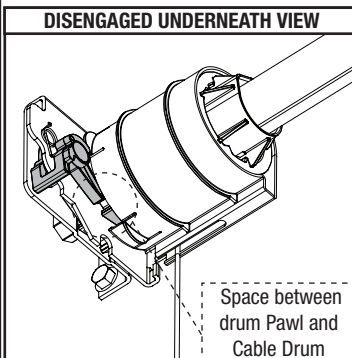
#### ENGAGED UNDERNEATH VIEW



#### DISENGAGED SYSTEM SIDE VIEW



#### DISENGAGED UNDERNEATH VIEW



## TorqueMaster® Plus Reset Instructions Continued...

**Double spring system:** Visually inspect the TorqueMaster® Plus end brackets to confirm that the system has engaged (see illustration). Door will open, but will not close. Door makes a distinct “clicking” noise upon being opened. If the system is engaged, carefully follow the reset instructions below or refer to the reset tag (attached to right hand end bracket) to reset the TorqueMaster® Plus system.

### RESETTING AN ENGAGED TORQUEMASTER® PLUS DOUBLE SPRING SYSTEMS ONLY:

1. First, locate and visually inspect the TorqueMaster® Plus end brackets to confirm that the system is engaged (see illustration).
2. Disengage the opener (if installed) by pulling or placing the emergency disconnect in the manual operated position.
3. With assistance, raise the door to the fully open position.
4. Place vice clamps onto both vertical tracks just below the bottom roller on both sides.
5. Now is a good time to remove vehicles or personal items from garage to provide clear access to end brackets.
6. Flip the ratchet pawl knob on both end brackets to the upper position (see illustration).
7. Raise door 2”-3” and then lower door. Repeat this process until the system resets (see disengaged system illustrations).

**IMPORTANT:** BE PREPARED TO SUPPORT THE TOTAL WEIGHT OF THE DOOR.

8. Cautiously remove the vice clamps from the vertical tracks. With assistance, lower door.

### CHECKING SPRINGS FOR TENSION:

9. Starting on the right hand side, place a ratchet wrench with 5/8” socket on the TorqueMaster® Plus winding shaft (see illustration). Ensure ratchet is set so that it will tighten counter clockwise on the right hand side, and clockwise on the left hand side. If tension is present, remove the ratchet and check the left hand side. If springs have tension, proceed to the paragraph titled BALANCING DOOR; if no spring tension is present, contact a qualified door systems technician to replace the spring(s).

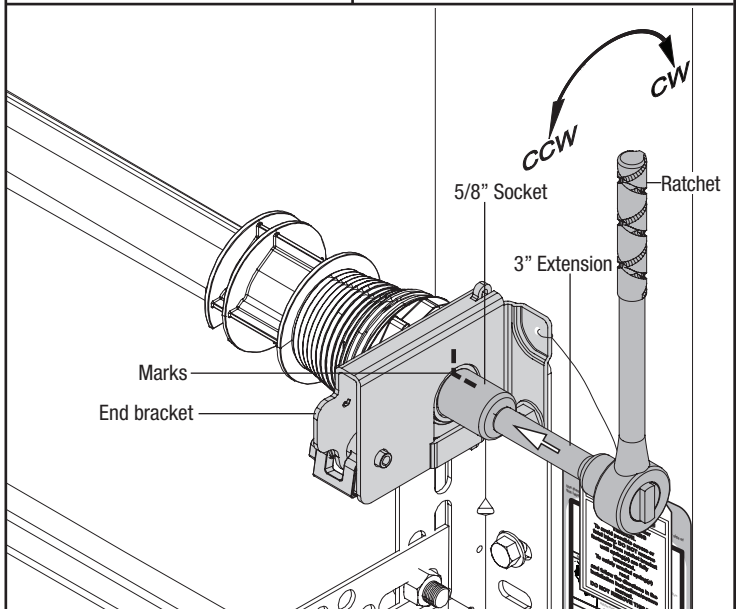
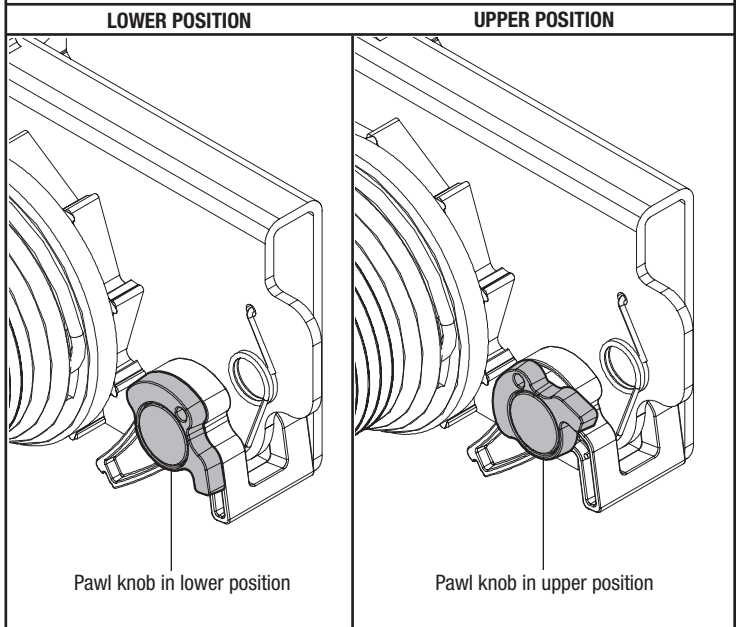
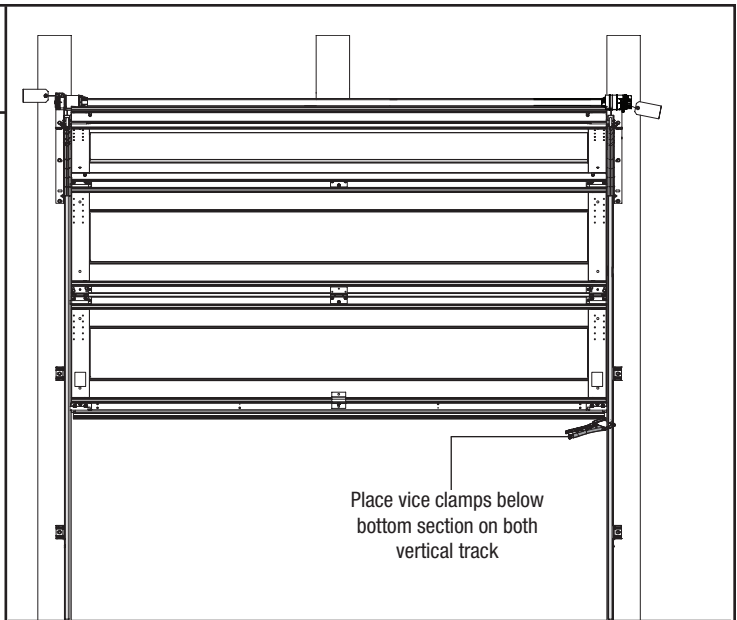
**IMPORTANT!** TO AVOID POSSIBLE INJURY, HAVE A TRAINED DOOR SYSTEM TECHNICIAN MAKE ADJUSTMENTS/REPAIRS TO CABLES, SPRING ASSEMBLIES AND OTHER HARDWARE.

### BALANCING DOOR:

## WARNING

PRIOR TO WINDING OR MAKING ADJUSTMENTS TO THE SPRINGS, ENSURE YOU’RE WINDING IN THE PROPER DIRECTION AS STATED IN THE INSTALLATION INSTRUCTIONS. OTHERWISE, THE SPRING FITTINGS MAY RELEASE FROM SPRING IF NOT WOUND IN THE PROPER DIRECTION AND COULD RESULT IN SEVERE OR FATAL INJURY.

Lift the door and check its balance. Adjust springs, if door lifts by itself (hard to pull down) or if door is difficult to lift (easy to pull down). Anytime spring adjustments are made, ratchet pawl knob must be in the upper position (see illustration). An unbalanced door can cause idrive® or Torquemaster® Plus operation problems.



## TorqueMaster® Plus Reset Instructions Continued...

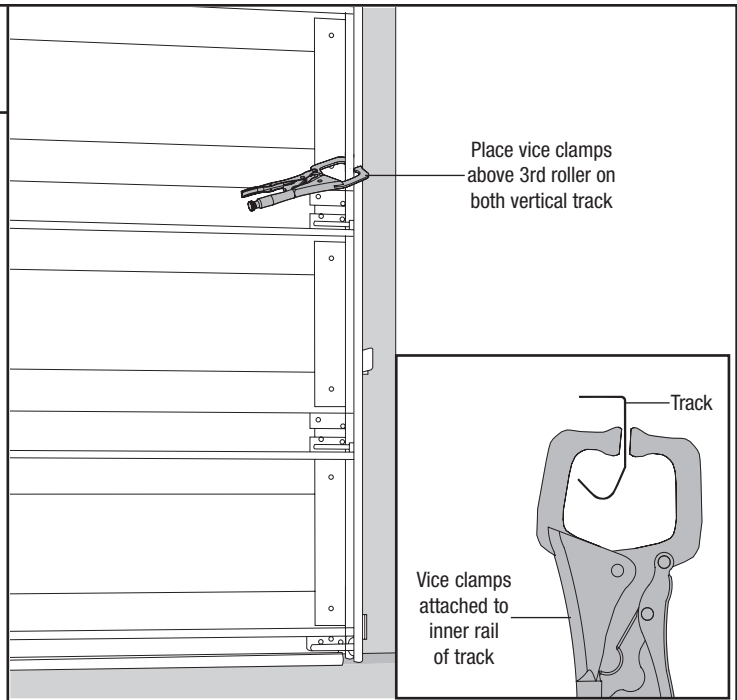
**IMPORTANT!** TO ADJUST SPRINGS, ONLY ADD OR REMOVE A MAXIMUM OF 3/10 OF A TURN (THREE TEETH ON THE RATCHET WHEEL) AT A TIME. BOTH SIDES NEED TO BE ADJUSTED EQUALLY ON DOUBLE SPRING DOORS.

Close the door and place vice clamps onto both vertical tracks just above the third roller. This is to prevent the garage door from raising while adjusting the counterbalance spring(s).

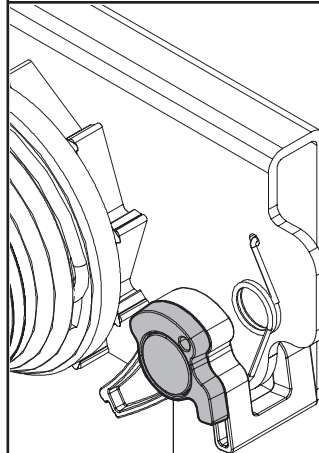
**To Add Spring Tension:** The ratchet wheel is made of 10 teeth. To add spring tension, ensure the ratchet wrench is set so that it will tighten counter clockwise on the right hand side, and clockwise on the left hand side. Place the ratchet wrench with 5/8" socket onto the winding shaft, pull down to add 3/10 of a turn. Watch as three teeth of the ratchet wheel pass over the pawl, creating three "clicks".

**To Remove Spring Tension:** To remove spring tension, ensure the ratchet wrench is set so that it will tighten counter clockwise on the right hand side and clockwise on the left hand side. Place the ratchet wrench with 5/8" socket onto the winding shaft. Pull down on the ratchet to relieve pressure between the pawl and the ratchet wheel. Push in on the pawl to allow the three ratchet wheel teeth to pass by the pawl, as you carefully allow the ratchet wrench to be rotated upward by the spring tension. Release the pawl to allow it to engage with the ratchet wheel.

Remove the vice clamps from the vertical tracks, re-check door balance and adjust if necessary. When door is balanced and adjusted properly, place the ratchet pawl knobs in the active position (lower position).

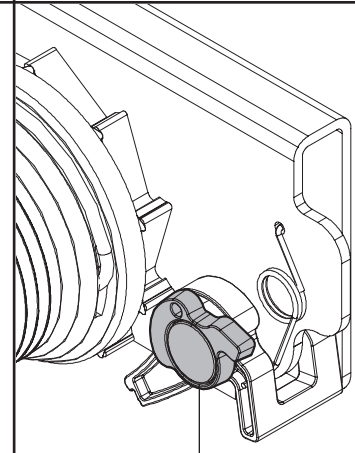


LOWER POSITION

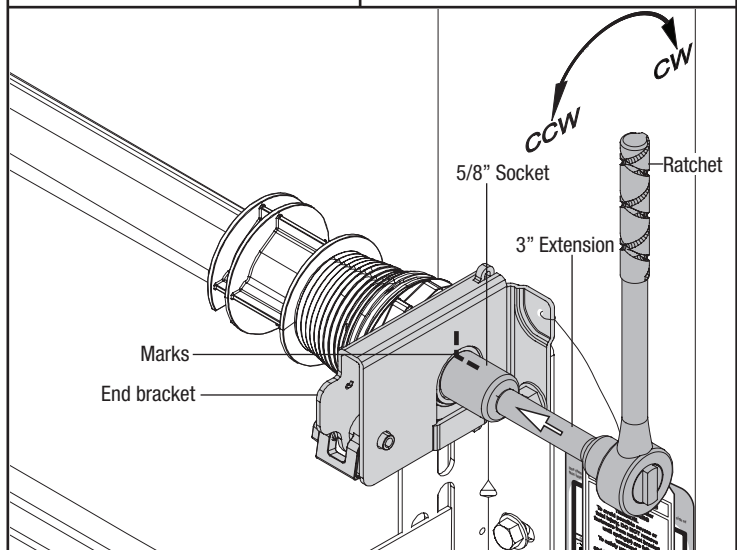



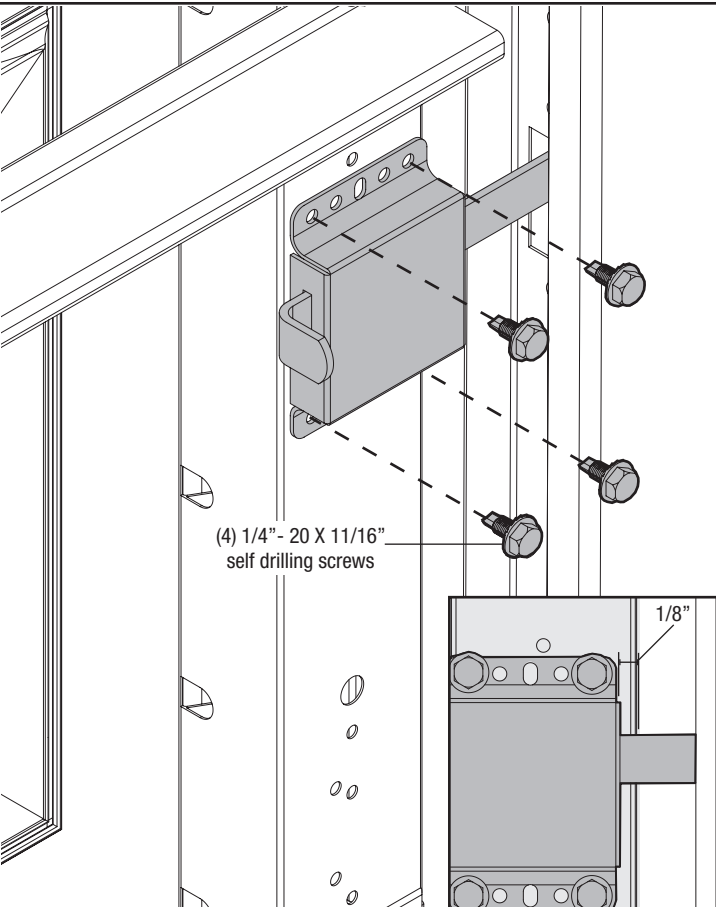
Pawl knob in lower position


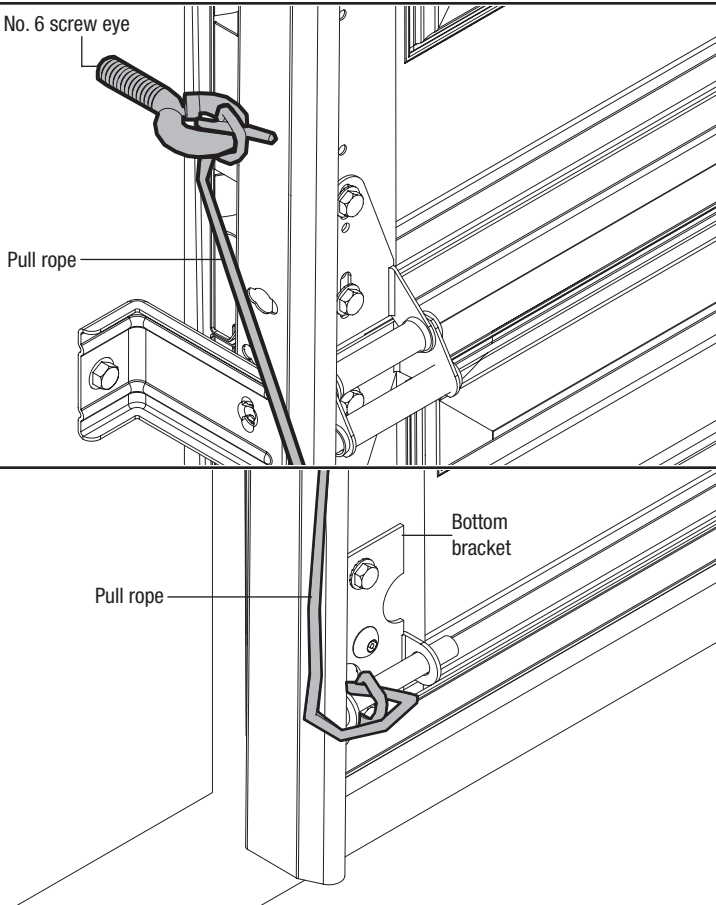
UPPER POSITION



Pawl knob in upper position



	<h2>Side Lock</h2>	
<p>Tools Needed:</p> <p>Power Drill</p> <p>7/16" Socket Driver</p> <p>Tape Measure</p>	<p>Install the side lock on the second section of the door. Square the lock assembly with the door section and align with the square hole in the vertical track. The side lock should be spaced approximately 1/8" in from the section edge. Secure the lock to the section with (4) 1/4" - 20 x 11/16" self drilling screws.</p> <p><b>IMPORTANT:</b> SIDE LOCKS MUST BE REMOVED OR MADE INOPERATIVE IN THE UNLOCKED POSITION IF AN OPERATOR IS INSTALLED ON THE DOOR.</p> <p><b>NOTE:</b> After completing this step, continue with Step 15 on page 18.</p>	 <p>(4) 1/4" - 20 X 11/16" self drilling screws</p> <p>1/8"</p>

	<h2>Pull Rope</h2>	
<p>Tools Needed:</p> <p>Power Drill</p> <p>Drill Bit</p>	<p><b>⚠ WARNING</b></p> <p>DO NOT INSTALL PULL ROPES ON DOORS WITH ELECTRIC OPERATORS. CHILDREN MAY BECOME ENTANGLED IN THE ROPE CAUSING SEVERE OR FATAL INJURY.</p> <p>Pilot drill the location for the No. 6 screw eye. Screw the No. 6 screw eye into the wood jamb approximately 48" to 50" (1220 to 1270 mm) from the floor. Tie the pull rope to the screw eye and to the bottom bracket as shown.</p>	 <p>No. 6 screw eye</p> <p>Pull rope</p> <p>Bottom bracket</p> <p>Pull rope</p>



## Trolley Operator

Tools Needed:  
Tape Measure

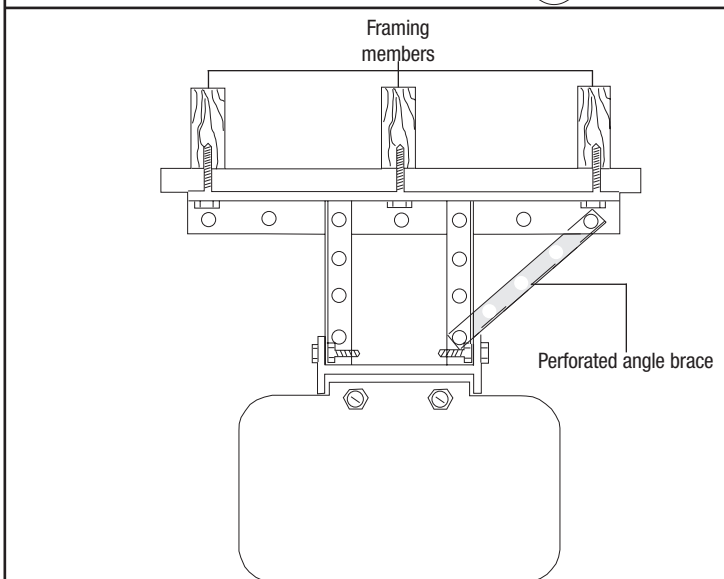
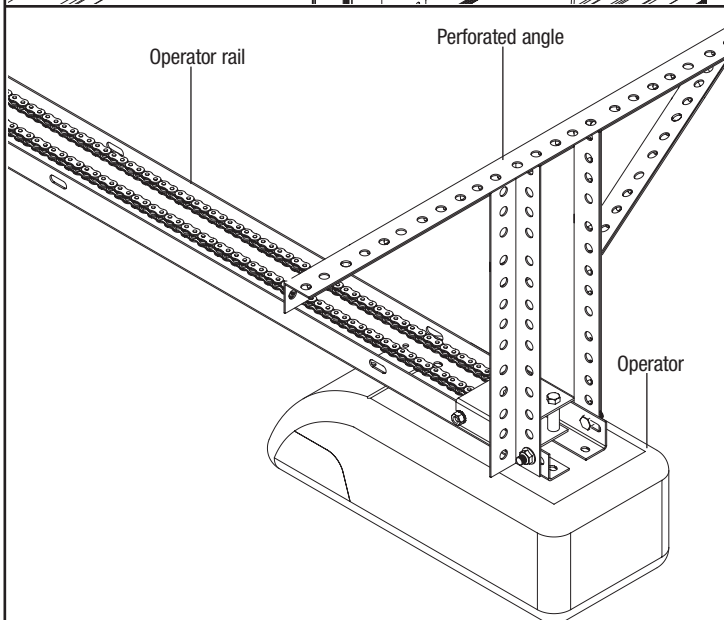
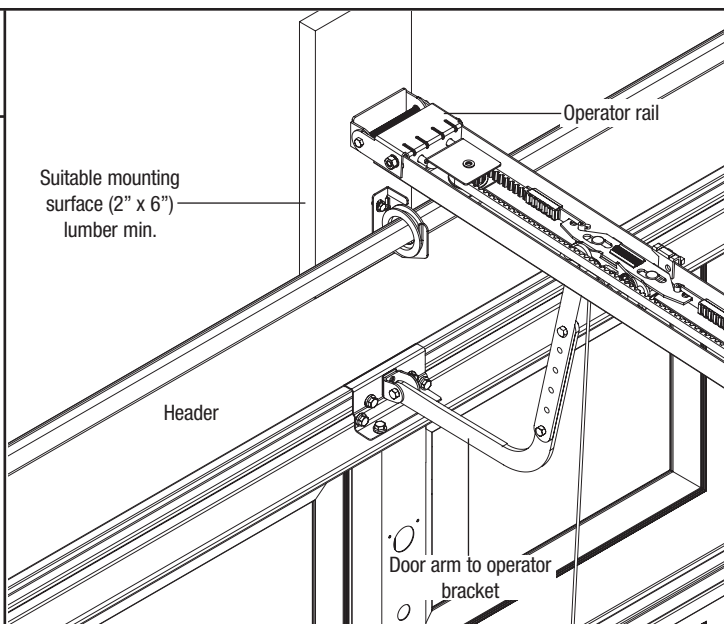
**NOTE:** See Trolley Operator Manual for complete installation instructions.

### **WARNING**

OPERATOR MUST BE TESTED AT TIME OF INSTALLATION AND MONTHLY THEREAFTER AS DESCRIBED IN YOUR INSTALLATION INSTRUCTIONS AND OWNER'S MANUAL, TO ENSURE THAT DOOR SAFETY FEATURES FUNCTION. FAILURE TO TEST OR MAKE ANY NECESSARY ADJUSTMENTS OR REPAIRS, CAN RESULT IN SEVERE OR FATAL INJURY.

1. Install operator rail 1/2" to 1-1/2" (13 - 38 mm) above high arc of top section of the door.
2. Mount operator to ceiling so that 1" to 1-1/2" (25 - 38 mm) clearance is maintained between trolley rail and top section when door is fully open (trolley rail will slope down towards rear).
3. Attach door arm to operator bracket.
4. Attach operator rail to suitable mounting surface (2" x 6") lumber min.
5. Attach operator to ceiling using perforated angles as shown.

**IMPORTANT:** PERFORATED ANGLE MUST BE ATTACHED TO FRAMING MEMBER(S).



OPTIONAL INSTALLATION

## Cleaning

### CLEANING YOUR GARAGE DOOR

**IMPORTANT:** DO NOT USE A PRESSURE WASHER ON YOUR GARAGE DOOR!

While factory-applied finishes on garage doors are durable, it is desirable to clean them on a routine basis. Some discoloration of the finish may occur when a door has been exposed to dirt-laden atmosphere for a period of time. Slight chalking may also occur as a result of direct exposure to sunlight.

Cleaning the door will generally restore the appearance of the finish. To maintain an aesthetically pleasing finish of the garage door, a periodic washing of the garage door is recommended.

**The following cleaning solution is recommended:**

A mild detergent solution consisting of one cup detergent (with less than 0.5% phosphate) dissolved into five gallons of warm water will aid in the removal of most dirt.

**NOTE:** The use of detergents containing greater than 0.5% phosphate is not recommended for use in general cleaning of garage doors.

**NOTE:** Be sure to clean behind weather stripping on both sides and top of door.

**CAUTION:** NEVER MIX CLEANSERS OR DETERGENTS WITH BLEACH.

### GLASS CLEANING INSTRUCTIONS

Clean with a mild detergent solution (same as above) and a soft cloth. After cleaning, rinse thoroughly.

### ACRYLIC CLEANING INSTRUCTIONS

Clean acrylic glazing with nonabrasive soap or detergent and plenty of water. Use your bare hands to feel and dislodge any caked on particles. A soft, grit-free cloth, sponge or chamois may be used to wipe the surface. Do not use hard or rough cloths that will scratch the acrylic glazing. Dry glazing with a clean damp chamois.

**NOTE:** DO NOT USE any window cleaning fluids, scouring compounds, gritty cloths or solvent-based cleaners of any kind.



## Painting

### SURFACE PREPARATION FOR PAINTING

Wax on the surface must be removed or paint peeling/flaking will result. To remove this wax, it will be necessary to lightly scuff the surface with a fine steel wool pad, saturated with soapy water. A final wipe and rinse should be done with clean water only, to remove any loose particles and any soapy film residue.

Surface scratches, which have not exposed the metal substrate, can be lightly buffed or sanded with 0000 steel wool or No. 400 sand paper to create a smoother surface. Care must be taken to not expose the substrate under the paint. Once the substrate is exposed, the likelihood for rusting is greatly increased.

If substrate is exposed, it must be treated to prevent rust from forming. Sand the exposed area lightly and paint with a high quality metal primer, specifically intended for galvanized surfaces, to protect the area from corrosion. Allow for drying time on primer can label before applying topcoat.

The surface of the factory-applied finish, that is being painted, must not be too smooth, or the paint will not adhere to it. It is advisable to test in an inconspicuous area, to evaluate adhesion. If poor adhesion is observed, surface preparation for painting the factory-applied finish must be repeated until desired results are achieved. Again, care must be taken to not expose the substrate under the paint.

### Painting

After surface has been properly prepared, it must be allowed to dry thoroughly, and then coated immediately with premium quality latex house paint. Follow paint label directions explicitly. Oil base or solvent base paints are not recommended. Please note that if substrate is exposed and not properly primed, painting with latex paint may cause accelerated rusting of the steel in the exposed area.

### NOTES:

1. Repainting of finish painted steel doors cannot be warranted, as this condition is totally beyond the door manufacturer's control.
2. Consult a professional coatings contractor if in doubt about any of the above directions.
3. Follow directions explicitly on the paint container labels for proper applications of coatings and disposal of containers. Pay particular attention to acceptable weather and temperature conditions in which to paint.

## Limited Warranty

### MODEL 8000, 8100 and 8200

Subject to the terms and conditions contained in this Limited Warranty, Wayne-Dalton ("Manufacturer") warrants the sections of the door, which is described at the top of this page, **TEN (10) YEARS** against:

- (i) The door becoming inoperable due to rust-through of the steel skin from the core of the door section, due to cracking, splitting, or other deterioration of the steel skin, or due to structural failure caused by separation or degradation of the foam insulation.
- (ii) Peeling of the original paint on the door as a result of a defect in the original paint or in the application of the original paint coating, in cases where the door sections and the original paint: (a) have not been subjected to adverse atmospheric conditions or contaminants (such as salt water or other marine environment, or to toxic or abrasive substances, including those in the air); (b) have been maintained in compliance with Manufacturer's recommendations; and (c) have not been subject to physical abrasion, impacted by a hard object, or punctured (including without limitation "paint rub" occurring in metal to metal contact and movement).

The Manufacturer warrants the garage door hardware (except springs) and the tracks of the above-described door, **TEN (10) YEARS**, against defects in material and workmanship, subject to all the terms and conditions below.

The Manufacturer warrants those component parts of the door not covered by the preceding provisions of this Limited Warranty against defects in material and workmanship for a period of **ONE (1) YEAR** from the date of installation.

This Lifetime Limited Warranty is extended only to the person who purchased the product and continues to own the premises (where the door is installed) as his/her primary residence ("Buyer"). This Limited Warranty does not apply to residences other than primary, or to commercial or industrial installations, or to installations on rental property (even when used by a tenant as a residence). This Limited Warranty is not transferable to any other person (even when the premises is sold), nor does it extend benefits to any other person. As a result this Limited Warranty does NOT apply to any person who purchases the product from someone other than an authorized Wayne-Dalton dealer or distributor.

The Manufacturer will not be responsible for any damage attributable to improper storage, improper installation, or any alteration of the door or its components, abuse, damage from corrosive fumes or substances, salt spray or saltwater air, fire, Acts of God, failure to properly maintain the door, or attempt to use the door, its components or related products for other than its intended purpose and its customary usage. This Limited Warranty does not cover ordinary wear. This Limited Warranty will be voided if the original finish is painted over, unless Manufacturer's preparation and painting instructions are followed explicitly. This Limited Warranty will be voided if any holes are drilled into the door, other than those specified by the Manufacturer.

THIS LIMITED WARRANTY COVERS A CONSUMER PRODUCT AS DEFINED BY THE MAGNUSON-MOSS ACT. NO WARRANTIES, EXPRESS OR IMPLIED (INCLUDING BUT NOT LIMITED TO THE WARRANTY OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE) WILL EXTEND BEYOND THE TIME PERIOD SET FORTH IN **UNDERScoreD BOLD FACE TYPE** IN THIS LIMITED WARRANTY, ABOVE.

- Some States do not allow limitations on how long an implied warranty lasts, so the above limitations may not apply to you.

Any claim under this Limited Warranty must be made in writing, within the applicable warranty period, to the dealer from which the product was purchased. Unless the dealer is no longer in business, a written claim to the Manufacturer will be the same as if no claim had been made at all.

At the Manufacturer's option, a service representative may inspect the product on site, or Buyer may be required to return the product to the Manufacturer at Buyer's expense. Buyer agrees to cooperate with any representative of the Manufacturer and to give such representative full access to the product with the claimed defect and full access to the location of its installation.

If the Manufacturer determines that the claim is valid under the terms of this Limited Warranty, the Manufacturer will repair or replace the defective product. The decision about the manner in which the defect will be remedied will be at the discretion of the Manufacturer, subject to applicable law. THE REMEDY WILL COVER ONLY MATERIAL. THIS LIMITED WARRANTY DOES NOT COVER OTHER CHARGES, SUCH AS FIELD SERVICE LABOR FOR REMOVAL, INSTALLATION, PAINTING, SHIPPING, ETC.

Any repairs or replacements arranged by Manufacturer will be covered by (and subject to) the terms, conditions, limitations and exceptions of this Limited Warranty; provided, however, that the installation date for the repaired or replaced product will be deemed to be the date the original product was installed, and this Limited Warranty will expire at the same time as if there had been no defect. If a claim under this Limited Warranty is resolved in a manner other than described in the immediately preceding paragraph, then neither this Limited Warranty nor any other warranty from the Manufacturer will cover the repaired or replaced portion of the product.

THE REMEDIES FOR THE BUYER DESCRIBED IN THIS LIMITED WARRANTY ARE EXCLUSIVE and take the place of any other remedy. The liability of the Manufacturer, whether in contract or tort, under warranty, product liability, or otherwise, will not go beyond the Manufacturer's obligation to repair or replace, at its option, as described above. THE MANUFACTURER WILL NOT UNDER ANY CIRCUMSTANCES BE LIABLE FOR SPECIAL, INCIDENTAL, OR CONSEQUENTIAL DAMAGES, including (but not limited to) damage or loss of other property or equipment, personal injury, loss of profits or revenues, business or service interruptions, cost of capital, cost of purchase or replacement of other goods, or claims of third parties for any of the foregoing.

- Some States do not allow the exclusion or limitation of incidental or consequential damages, so the above limitation or exclusion may not apply to you.

No employee, distributor, dealer, representative, or other person has the authority to modify any term or condition contained in this Limited Warranty or to grant any other warranty on behalf of or binding on the Manufacturer, and anyone's attempt to do so will be null and void.

Buyer should be prepared to verify the date of installation to the satisfaction of the Manufacturer.

The rights and obligations of the Manufacturer and Buyer under this Limited Warranty will be governed by the laws of the State of Ohio, USA, to the extent permitted by law.

- This Limited Warranty gives you specific legal rights and you may also have other rights, which may vary from State to State.

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Covered by one or more of the following Patents; 5,408,724; 5,409,051; 5,419,010; 5,495,640; 5,522,446; 5,562,141; 5,566,740; 5,568,672; 5,718,533; 6,019,269; 6,089,304; 6,644,378; 6,374,567; 6,561,256; 6,527,037; 6,640,872; 6,672,362; 6,725,898; 6,843,300; 6,915,573; 6,951,237; 7,014,386; 7,036,548; 7,059,380; 7,121,317; 7,128,123; 7,134,471; 7,134,472; 7,219,392; 7,254,868. Canadian: 2,384,936; 2,477,445; 2,495,175; 2,507,590; 2,530,701; 2,530,74; 2, 2,532,824. Other US and Foreign Patents pending.

## Please Do Not Return This Product To The Store

Contact your local Wayne-Dalton dealer. To find your local Wayne-Dalton dealer, refer to your local yellow pages business listings or go to the **Find a Dealer** section online at **www.Wayne-Dalton.com**

Thank you for your purchase